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*—George Sarton, from "The History of Medicine Versus the History of Art"*

**Are combination drug  
products useful in treatment  
involving concomitant use  
of two or more drugs?**

**Opinion**

Results of a questionnaire to  
7,000 physicians:

**62.9%**

**Believe combination drug  
products are useful.**

**13.8%**

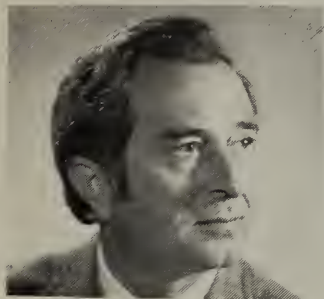
**Do not believe combination drug  
products are useful.**

# Are combination drug products useful in treatment involving concomitant use of two or more drugs?

## Opinion & Dialogue

### Doctor of Medicine

Louis Lasagna, M.D.  
Professor and Chairman  
Department of  
Pharmacology & Toxicology  
University of Rochester  
School of Medicine  
and Dentistry



Obviously, many drugs are given concomitantly. Whether it makes sense to combine medications in one preparation, be it capsule, tablet, or liquid, is a question that can be answered only by examining the advantages and disadvantages in the individual case.

Among the advantages is, first of all, convenience. The more medications that are taken concurrently and the more complicated the directions, the less likely the patient is to take medications accurately. From the standpoint of convenience and accuracy, and economy as well, you can make an important case for putting medications together in one preparation, as long as they are compatible.

By the same token, when you prescribe a properly tested and rational combination, you should have less worry about pharmaceutical or pharmacological compatibility — and about reasonable dosage ratios as well. Compatibility of the formulation should be demonstrated in the laboratory and clinic before the product is available for prescription—which is more than can usually be said for

the physician's own spontaneous creations. And, the dosage ratios employed in rational precompounded combinations are designed to meet the needs of substantial numbers of "typical" patients.

There is no doubt that many "atypical" patients are to be found, and for them the prefabricated combination must be rejected. But that hardly argues for eliminating rational combinations from the market. Think, for example, of the problems that would arise if the components of widely accepted combinations, like the oral contraceptives and the diuretic-antihypertensives, always had to be prescribed, purchased and ingested separately.

One disadvantage that comes to mind is some doctors' unawareness of the ingredients a given combination contains. For example, a doctor might know that a patient is allergic to aspirin but forget that a certain analgesic mixture, which he knows only by its trade name, contains aspirin. His prescription, then, causes considerable discomfort, to say the least. This problem is a function of physician education, rather than of combination therapy as such. Improving doctors' knowledge about all medicaments they prescribe is a problem that deserves tackling on its own.

Another accusation leveled at combination drugs is that they encourage sloppiness of diagnosis and treatment. In many cases, however, a combination may prove to be the most effective choice. A good ex-

ample of the usefulness of combinations appears in a recent article in the *Journal of Chronic Diseases* on the efficacy and side effects of an antihypertensive containing three ingredients, in which the track records of the combination drug and the individual ingredients were compared. Interestingly enough, whether the drugs were given individually or together, incidence and severity of side effects were the same. But blood pressure control was invariably better when the drugs were taken in one combination tablet than when they were taken separately (in "titratable" dosage) or in two or three different tablets.

Deciding which combinations constitute rational therapy obviously leads to a discussion of who is to determine which should be used and which should not. Realistically, I think combinations should be evaluated somewhat differently if they are old and established or new and untried.

In today's regulatory atmosphere, there is no possibility of a new combination being put on the market without a substantial amount of acceptable evidence in the form of controlled trials that show it to be safe and efficacious. On the other hand, I believe a different set of standards should apply to combination preparations that have been around for a long time. In other words, physician acceptance over a long period should be given some weight as evidence of the efficacy and safety of these drugs.

The FDA, however, does not seem to share this attitude. It often requires, for these older products, controlled trials that will monopolize the time of already overtired investiga-

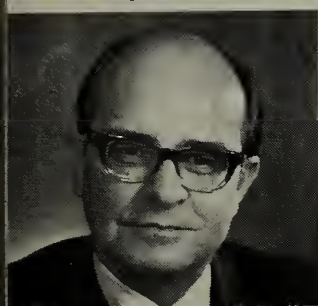
tors and cost a great deal of money. I wish we could agree on a "grandfather clause" approach to preparations that have been in use for a number of years and that have an apparently satisfactory track record.

For example, I think some of the antibiotic combinations that were taken off the market by the FDA performed quite well. I am thinking particularly of penicillin-streptomycin combinations that patients — especially surgical patients — were given in one injection. This made for less discomfort for the patient, less demand on nurses' time, and fewer opportunities for dosage errors. To take such a preparation off the market doesn't seem to be good medicine, unless actual usage showed a great deal of harm from the injections (rather than the proper use) of the combination.

The point that should be emphasized is that there are both rational and irrational combinations. The real question is, who should determine which is which? Obviously, the FDA must play a major role in making this determination. In fact, I don't think it can avoid taking the ultimate responsibility, but it should enlist the help of outside physicians and experts in assessing the evidence and in making the ultimate decision.

# Maker of Medicine

W. Clarke Wescoe, M.D.  
President  
Winthrop Laboratories



If two medications are used effectively to treat a certain condition, and it is known that they are compatible, it clearly is useful and convenient to provide them in one dosage form. It would make no sense, in fact it would be pedantic, to insist they always be prescribed separately. To avoid the appearance of pedantry, the "expert" decries the combination because it is a fixed dosage form. When the "expert" invokes the concept of fixed dosage form he obscures the fact that single-ingredient pharmaceutical preparations are also fixed dosage forms. By a singular semantic exercise he implies a pejorative meaning to the term "fixed dose" only when he uses it with respect to combinations. What is ignored is the simple fact that only in the rarest of circumstances does any physician attempt to titrate an exact therapeutic response in his patient. It is quite possible that some aches and pains will respond to 500 mg. of aspirin yet that fact does not militate against the usual dose being 650 mg.

The other semantic play often called into play is to describe a combination product as rational or irrational.

Take antibiotic mixtures, the source of much of the criticism generated against

combinations generally. Obviously, no one should be exposed willy-nilly to the potential side effects of two or three antibiotics when only one is needed. At the same time there are cases where it is prudent to prescribe more than one. The clinician is the judge in these circumstances, as he should be.

There is no clear definition of the word rational. Most persons, I suppose, would find it synonymous with reasonable, but in many circumstances it may best be defined as the opinion of those in power at the moment.

Other factors govern combination therapy, not the least of which has been its broad use by practicing physicians anxious to achieve convenience in prescribing, to reduce medication error, and to save money for their patients. Combinations clearly have met the test on all three counts.

I have been impressed by studies showing that the rate of error climbs markedly with the number of medications to be taken, even with sophisticated patients. When medically justified, therefore, this factor alone supports the logic of combination therapy.

The cost argument for combinations appears to be irrefutable. In 1971, R. A. Gosselin studied the 71 combination products (excluding oral contraceptives) among the 200 most prescribed drugs. The study found that if all 71 products were discontinued, and if each ingredient in these combinations were prescribed separately, the price of medicines to patients would jump by \$443.2 million on a national basis! At a time when the cost of medical care is under so much fire, it would be nonsensical to boost costs without clearly irre-

futable medical reasons.

The part played by government on this question, of course, is fundamental. The FDA should play a role in determining which combinations are reasonable. That role, as defined by law and regulation, is to ensure that any medication on the market is safe and effective in line with its label claims. Certainly combinations are entitled to as much consideration as single entities—neither more nor less. So long as the addition of one drug to another does not make either less safe, or less effective, so long as they are compatible in a formulation, we have a reasonable product. It makes no sense to recommend the use of two products for certain conditions and to deny their being combined in a single form. An unhappy side effect of the problem concerns the efficacy panel discussions of many products submitted for review. The term "effective, but" has been freely interpreted to mean "ineffective" in toto, regardless of the merit of the individual drugs. This interpretation has placed numerous useful combination products in needless jeopardy.

In reading the actual reports of the review panels, it seems clear that some of the ratings were based less on scientific research and clinical observation than on the "informed" opinions of the panelists. These "informed" opinions were accepted at face value, while

the "informed" opinions of others who had used the products were rejected. All of this put combination products into a sort of scientific never-never land.

It should be kept in mind by all, government as well as others involved in our health care system, that advances in therapy are seldom made in leaps and bounds but rather by small painstaking steps—and that some of these steps have resulted from research in combination drugs as well as with single entities. Given the near-infinite biologic variation in patient response, this is hardly surprising to clinicians. It should not be to regulatory agencies either.

In the end, the practicing physician is in the best position to decide if a particular combination makes sense. Such a decision should not be made exclusively by those whose responsibility for continuing clinical care is limited. Clinicians are the best judges of efficacy because the ultimate proof of any product's effectiveness is acceptance by physicians who have observed its actions in patients over time. The corollary statement may be made about over-the-counter medicines, which would not long survive if they failed to afford the relief the user anticipates. That the antihistamine in a "cold" remedy may not *always* be necessary is no reason to proscribe the combination generally.

## Opinion & Dialogue

What is your opinion, doctor?

We would welcome your comments.



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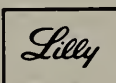
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## Guest Editorial

ONE OF THE great tragedies of this year, even of this decade, is the recent outbreak of preventable paralytic poliomyelitis in a Christian Science school in Greenwich, Connecticut. On September 29, the first of 11 cases of paralytic disease, nine of which have at this time been confirmed as Type I poliomyelitis, occurred. Nine of the 11 cases were 12 to 17-year-old members of the football and soccer teams. The other two cases were females seven and 18 years old. This outbreak occurred at a time when there have been no other cases of polio reported in the entire New England area, and only a total of ten cases previously reported in the entire nation this year. The event has many medical, public health, social, cultural, and even legal ramifications.

First, poliovirus is still present in the human community in sufficient amount to warrant an extensive commitment of medical and public health resources.

Second, population groups, which through religious practice, do not follow accepted public health measures such as immunization are, indeed, hazards. They are hazards, not only to themselves, but also to the community as a whole by acting as reservoirs of disease within the general population.

Third, this outbreak brings to mind the question of the rights of children to be protected from life-threatening or severely crippling disease.

In this enlightened age, we talk frequently of the right to be well born, the right to be free of hunger, and the right to have good medical care. Many federal programs invest large sums of money in the care and protection of infants and children. This event in Connecticut concerns 11 children who have become victims of paralytic poliomyelitis and who were in the age group where the decisions as to whether they were immunized against poliomyelitis were made by their parents who were practicing the Christian Science religion. Should not we ask ourselves whether the rights of children extend beyond the "privilege" of parents who are unenlightened enough to oppose the protection that immunization affords against such a tragic event?

I do not intend to be dramatic or argumentative. My intention is to speak out on behalf of immunizations for children, whether or not their parents choose to practice a religion that prohibits such preventive medical practices. I feel that, as Commissioner of Health, I cannot stand aside and allow such tragedies to occur without at least registering an objection. *R. LeRoy Carpenter, MD, MPH, Commissioner of Health* □

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Center for Disease Control Morbidity and Mortality Weekly Reports: No. 42, October 21, 1972; No. 43, October 28, 1972; No. 44, November 4, 1972.

## PSRO Is a Four Letter Word



The Bennett Amendment designed to take punitive action against doctors and other health providers, became law when Congress passed HR-1 with the Bennett Amendment or Professional Standards Review Organization (PSRO) as a rider. Significantly, Congress did not get a chance to vote on PSRO itself, but only on the freight train bill, HR-1, with its multiple peculiar riders. Each member of OSMA is urged to become intimately familiar with PSRO because:

1. It is a bad program which cannot possibly accomplish its objectives of promoting effective, efficient, and economic delivery of health care services of proper quality.

2. It will entail further endless bureaucratic harrassment to practicing physicians, who are already distracted enough by bureaucracy. It will, in fact, decrease efficiency of physicians by an endless number of inquiries and reports after the fact with built-in retrospective denials that the physician has to pay for up to \$5,000. Have you noticed that bureaucrats or Junior G-Men have 20-20 hindsight?

3. It will surely increase the cost of medical care since the costs of administering the program will necessarily create a vast new bureaucracy. It will compound the shortage of physicians since sizeable numbers will have to be taken out of patient service in order to administer PSRO, and decrease working effectiveness of physicians doing patient service because of the additional time wasted on reports, answering inquiries, and attending judicial reviews.

4. It will not increase the quality of medical care, but will attempt to change private personalized health services into dehydrated computerized fittings of square pegs into round holes, with the holes varying in size, shape, and location at the discretion of the

Secretary of HEW and his famous regulators. In addition, it will lower quality by making physicians practice increasingly defensive medicine.

5. In rural areas, where there is already a physician shortage, and where a large percentage of patients are on Medicare or Medicaid, it will compound the physician shortage by making rural practice even less attractive. The overall physician shortage will be increased due to the fact that many physicians would find practice under PSRO so unpleasant that they will retire.

6. It will pave the way for National Health Insurance. The Federal government cannot possibly afford NHI or socialized medicine until they get absolute control over practicing physicians through a mechanism like PSRO.

7. Although nominally under medical control, actual control of PSRO would be out of our hands as regulations are developed along the way and at the onset by PSRO advisory groups.

### My Proposal: Non-Compliance!!

If we refuse as a group to be PSROed by anyone, the Federal Government has the option of discontinuing Medicare and Medicaid. It is not probable that they will do this because it would work a hardship on recipients. What other recourse would the government have but to make some acceptable bargain with us for care of Medicare and Medicaid recipients? We should be prepared for a decline in income. If we get PSROed, be prepared for a decline in income permanently.

If you share my low opinion of PSRO and the disastrous effects on the American doctor, please study PSRO, arrange debates at your county medical society meetings, encourage your fellow physicians to understand PSRO, and send your delegates to the annual meeting instructed to vote against compliance. If OSMA votes for noncompliance, you can be sure that many states will follow suit and Congress will have to recognize PSRO as an unworkable concept. Congress can then negotiate with us for measures to accomplish proper objectives.

*S.R. McCaughy, MD*

## Sinusitis or Malignancy?

LOUIS D. LOWRY, MD

*Malignancies of the nose and paranasal sinusitis. Delay in diagnosis can be avoided by diagnostic techniques outlined with an increased survival.*

**M**ALIGNANCIES of the nasal cavity and paranasal sinuses are uncommon and by the nature of their location and symptoms they are often overlooked. In this paper, the incidence, age, pathological types, symptoms, radiographic diagnosis, definitive diagnosis, pathways of spread, and treatment of such malignancies will be discussed. Inverting papilloma will be presented as a special entity because of its potential curability.

It is estimated that there is one case of maxillary sinus carcinoma per 2,000,000 persons per annum. This constitutes three to five percent of the upper respiratory and upper alimentary tract malignancies. The projection for Oklahoma would be approximately 13 cases per year. Men are stricken more often than women by a ratio of 2-3:1. There has been no proven etiology and the average age is 50 to 60 years.

A further approximation of carcinomas for the entire nasal cavity and all paranasal

sinuses would be 21 new cases for the population of the state of Oklahoma per annum. This is not a large number of cases. It is possible that none of you will see a single case of malignancy of this area in your entire professional life. However, the purpose of this paper is to alert you to the symptoms and signs of this disease so that an earlier diagnosis can be made.

The classification of these lesions is squamous cell carcinoma or poorly differentiated anaplastic carcinoma in approximately 80% of the cases. Other types include transitional cell carcinoma, adenocarcinoma, and several other rare tumors. Transitional cell carcinoma is thought by most pathologists to be an epithelial carcinoma of the basal cell layer and is not identical with the transitional cell carcinoma of the urinary bladder. In summary, approximately 90% of the tumors in the nose and paranasal sinuses are tumors of epithelial origin.

### PRESENTING SYMPTOMS

(Most Common Symptoms in Order of Decreasing Percentage of Presenting

Complaints)

Unilateral Nasal Obstruction  
Swelling of Cheek or Palate  
Pain  
Nasal Discharge  
Epistaxis

## Sinusitis / LOWRY

Nasal Polyp or Mass  
Visual Changes  
Dental Symptoms\*  
Proptosis  
Lacrimation  
Rhinorrhea

\*May be one of the early symptoms.

The above listing illustrates the most common presenting symptoms of patients seeking treatment and ultimately having a diagnosis of carcinoma of the nose or carcinoma of the maxillary sinus. As you review the symptoms, you will see that they mimic sinusitis, nasal polyps, allergy and other symptoms associated with infection and allergies of the nose and paranasal sinuses. The vagueness of the symptoms in itself often delays the patient presenting himself to a physician. After seeking attention, diagnoses such as sinusitis, nasal polyps, migraine headaches, allergy, etc., are often diagnosed and treated. Unilateral nasal obstruction was the presenting complaint in approximately 50% of the patients. In many instances, this was by the actual tumor mass and in other cases it was by displacement of the turbinates toward the midline (important in diagnostic consideration). The second most common complaint was swelling of the cheek or palate and in most of these, the pathological diagnosis could be obtained only by a Caldwell-Luc and direct tumor biopsy. Pain about the face in the area of the infra-orbital nerve, upper teeth and retro-orbital pain was also suggestive. Nasal discharge which was persistent and at times purulent due to secondary infection was a common symptom. Epistaxis was not common in a squamous cell carcinoma, but occurred more in other tumors such as melanoma. Nasal polyps or masses were often diagnosed by the patient's primary physician, while recurring or persistent symptoms prompted the patient to see another physician. Visual changes such as diplopia or invasion of the retro-orbital area and optic nerve were infrequent. Dental symptoms such as loosening of the maxillary teeth was one of the few early signs. Proptosis was secondary to direct invasion. Lacrimation was due to obstruction of the nasolacrimal duct. Rhinorrhea also appeared to be secondary to obstruction.

Primary among the physical findings was a unilateral mass or obstruction of the nose which could not be shrunk with decongestants. Swelling in the cheek or palate was seen when direct invasion of a tumor reached the cheek or palate. Transillumination of the sinuses was helpful *only* when there was an unequal transmission of light. Of the utmost and greatest importance is a careful nasal examination using local vasoconstrictors such as neosynephrine.

A direct quote from a paper by Tabb illustrates some classical cases of carcinoma of the maxillary antrum. It takes in the five most common symptoms:

"When a patient has a unilateral nasal obstruction with a bloody discharge, pain and swelling of the antrum, he has cancer of the maxillary sinus until proven otherwise."

In a review of the above symptoms, it is understandable why the average delay in diagnosis from onset of symptoms was 5.5 to 8.0 months with some patients having had symptoms for longer than one year.

Pathways of spread are via the lymphatics which are primarily the retropharyngeal nodes. There are some direct connections to the deep cervical nodes and also from the anterior portion of the nose to the submaxillary lymph nodes (Figure 1). Little is known of the actual lymphatic drainage of the sinuses and it has been stated that lymphatics of the sinuses pass through their ostia and join the lateral nasal lymphatics.

Palpable lymph nodes in patients having a diagnosis of carcinoma of the nose or paranasal sinuses showed only about a ten percent incidence of clinical metastases on first evaluation. On follow-up, during and after treatment, the total rose to only 25%. The retro-

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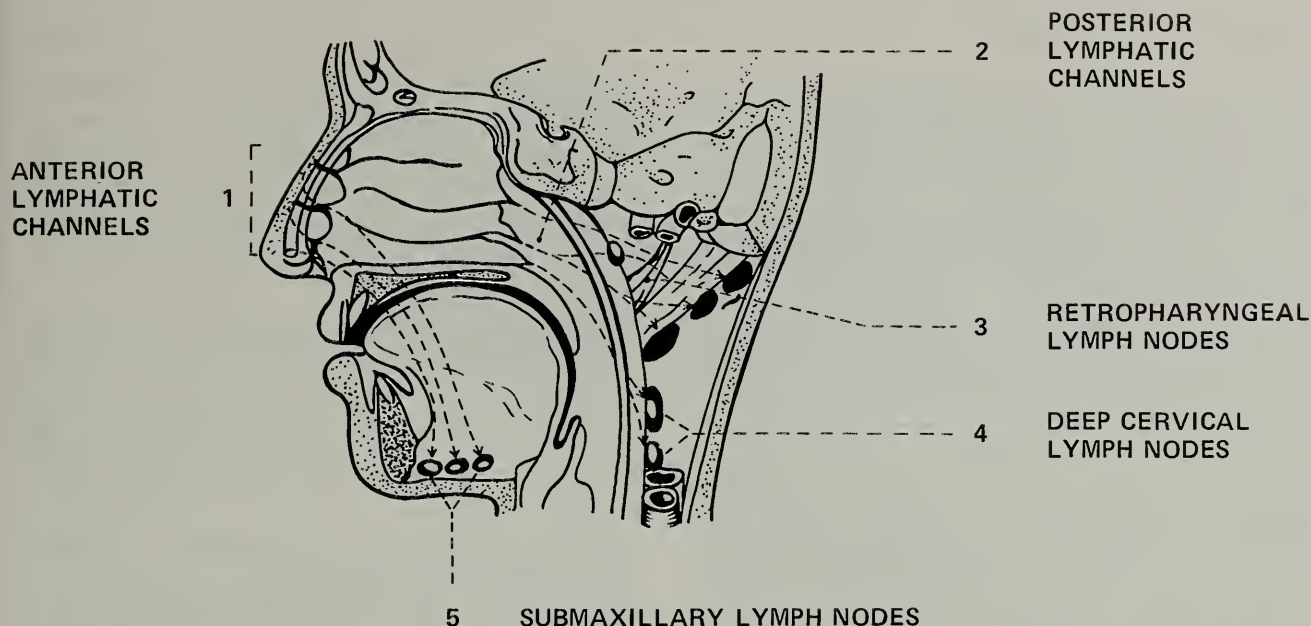


Figure 1. Drainage of the paranasal sinuses follows the drainage of the lymphatics of the lateral wall of the nose. Submaxillary lymph nodes may be positive in carcinoma of the anterior nose. Often, the only regional metastases are the lateral retropharyngeal lymph nodes.

pharyngeal lymph nodes assume great significance in the treatment of these malignancies.

After a thorough physical examination particularly of the nose, palate, alveolar ridge, cheek, upper buccal sulcus and palpation of the neck for nodes, there will be approximately 50% of the patients who will be undiagnosed.

At this point in our diagnostic evaluation, sinus films become important. Radiographic evidence of malignancy or opacification of the sinus, especially persistent opacification, alteration of bone density, especially decreased density or loss of density due to bone destruction, and soft tissue mass are all suspect. For screening, a Water's view is particularly good as it visualizes the maxillary and ethmoid sinuses and it has been estimated that 80% of these malignancies will show some definite changes on x-ray. Persistent opacification of a maxillary sinus warrants further investigation and a Caldwell-Luc is indicated. Bone destruction or soft tissue mass should be investigated immediately.

Definitive diagnosis is by tissue biopsy and microscopic examination. Cytology is mentioned only to condemn it as it may give false negative results and lead to a false sense of security. Many of these tumors can be directly biopsied through the nose. It should be pointed out that if a biopsy is neg-

ative and there is unilateral nasal obstruction with a mass, it may be that the turbinates have been pushed toward the midline by a mass in the maxillary antrum. In these cases, a Caldwell-Luc and direct biopsy are often the only means of making the correct diagnosis. The examination of dental root tips has been done at some centers.

Treatment of these malignancies is not hopeless, but cure rates from various series show a range of 12.5% to 44% cure rate. Included in these cases were some being treated with radiation for palliation only. The over-all best cure rate was a combination of radiation and surgery. It should be noted, however, that these were selected cases and that extension to the nasopharynx, cranial nerve involvement or invasion of the sphenoid bone were considered as contraindications to this combination of therapy in some series.

Radiation targets included the area of the retropharyngeal nodes in each case as they are the primary metastatic sites and in most series the dosage delivered was around 7,000 rads. Radical surgery consisted of maxillectomy with or without orbital exenteration depending upon the location of the tumor.

#### SPECIAL CASE OF INVERTING PAPILLOMA

Inverting papilloma is considered as a separate entity for two reasons: (1) It is felt

by some to be a pre-malignant lesion, (2) It is a locally recurring malignancy and does not metastasize. Duration of symptoms in these cases vary from two weeks to twenty years. Many patients had had a previous nasal polypectomy without a pathological report being available. Sinus films often showed antral thickening and in some cases, there was direct invasion through the medial maxillary sinus wall into the ethmoid. In a reported series, two-thirds of the patients seen with a diagnosis of inverting papilloma had had previous nasal surgery. The best treatment is aggressive removal which usually necessitates a lateral rhinotomy and on occasion, maxillectomy and orbital exenteration which is necessitated if a diagnosis of concurrent squamous cell carcinoma is made. Inverting papilloma is considered by many to be a pre-malignant lesion and is locally invasive requiring aggressive treatment. In cases where the papilloma has a good local resection, the cure rate is good.

Malignancies of the nose and paranasal sinuses are uncommon tumors and often go undiagnosed until late in their course for several reasons. These reasons consist of vagueness of symptoms, imitation of less serious disease, and misdiagnosis by the attending physician.

Even with the best physical examination, approximately 50% of these patients will go undiagnosed. However, with use of the Water's x-ray view of the sinuses, it should be possible to diagnose approximately 80% of these tumors.

Tissue diagnosis is mandatory and may necessitate a Caldwell-Luc.

Treatment of these lesions must include the retropharyngeal nodes and the over-all cure rate can be expected to be approximately 25%.

Suspicion of this disease should lead to an earlier diagnosis and a better cure rate of this disease. ☐

References are available from the author at P.O. Box 26901, Oklahoma City, Oklahoma 73190.

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# Role of Transfer Factor in Treating Complications of Smallpox Vaccination

JANICE LANKFORD, MS  
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ANN M. GROOMS, MD  
RUPRECHT NITSCHKE, MD

*The management of complications of smallpox vaccination in patients with unrecognized immune deficiencies may be facilitated by the use of transfer factor.*

**AFTER A RECENT** study of the risks of smallpox vaccination and the importation of the natural disease into the United States, the United States Public Health Service has recommended that smallpox vaccination be practiced as a selective rather than a routine procedure. This recommendation has already been viewed with caution by certain American pediatricians, and some plan to continue the practice of routine smallpox vaccination. In fact, it is reported that the health commissioners in three states have opposed the discontinuance of routine, non-selective vaccination.<sup>1</sup>

In light of this, it is likely that complications from smallpox vaccination such as postvaccinial encephalitis and vaccinia gangrenosa will continue to occur, although less frequently. The treatment of such complications and the resulting risk of death, however, may be anticipated to remain unchanged since the effectiveness of therapeutic alternatives such as administration of vaccinia immune globulin and/or amputation is essentially unchanged. This alone

is reason enough to encourage the development of a safer vaccine and more effective therapeutic alternatives.

There is one alternative for the treatment of disseminated vaccinia which is less well known and should be given greater consideration—namely, the administration of human anti-vaccinia transfer factor. Transfer factor is a material contained in and which can be isolated from the leukocytes of an immune donor. When administered to a non-

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From the Department of Pediatrics, Children's Memorial Hospital, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.

immune recipient, it endows that recipient with the *cellular* immune memory or responsiveness identical to that of the donor. For example, transfer factor from the leukocytes of an individual who is tuberculin positive is capable of transferring that skin test reactivity to a second individual who was tuberculin negative prior to the injection of the transfer factor. Likewise, transfer factor prepared from the leukocytes of a vaccinia-immune donor is capable of converting the lymphocytes of a non-immune recipient to a vaccinia-specific, immune responsive state. The effects of transfer factor are the same regardless of whether the vehicle of transfer is whole leukocytes, leukocyte extracts, or dialyzable transfer factor (leukocyte extracts purified by dialysis). Transfer factor is a non-antigenic moiety of less than 10,000 molecular weight. There is a definite advantage in utilizing the dialyzable extract in that the risk of sensitizing the recipient to the transplantation antigens of the donor is eliminated.<sup>2</sup>

The therapeutic use of anti-vaccinia transfer factor in the form of whole leukocytes has been reported in three cases of disseminated vaccinia<sup>3, 4, 5</sup> with clinical success in two cases. In the third case, death of the patient was attributed to graft-versus-host dis-

ease, a complication which can now be prevented by use of dialyzable transfer factor rather than viable leukocytes.

It is the primary purpose of this communication to inform the physicians of Oklahoma of the availability of a limited amount of dialyzable human anti-vaccinia transfer factor at the Children's Memorial Hospital, University of Oklahoma Health Sciences Center. Due to the fluctuation in donor sensitivity and the limited number of clinical trials, human transfer factor must be considered as an investigational drug at this time. All inquiries regarding this human transfer factor should be directed to the Pediatric Hematology - Oncology Service (Doctors Humphrey, Grooms, or Nitschke), Department of Pediatrics, Children's Memorial Hospital, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190 (telephone: 405 271-4412). □

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## CORRECTED NOTICE

### ***Editorial Services for Contributors to the Journal of the Oklahoma State Medical Association***

A notice appeared in the November issue about the availability of editorial and typing services at the University of Oklahoma Health Sciences Center. Ms. Barbara G. Cox, Coordinator of Editorial Services of the Learning Resources Center there, has asked the OSMA to make a correction in this announcement.

The Editorial Services Section has a primary commitment to the faculty of the Health Sciences Center. However, because a part of the Learning Resources Center's mission is to serve the Oklahoma medical community at large, its staff will make every effort to arrange free-lance services for Oklahoma physicians who wish help in preparing manuscripts for submission to the *Journal of the Oklahoma State Medical Association*.

Further information can be obtained by contacting Ms. Cox at the Learning Resources Center, 828 N.E. 15th St., P.O. Box 26901, Oklahoma City, Oklahoma 73190 (telephone: 405 271-4733). □

# Fasciotomy in the Treatment of Plantar Keratosis and Other Conditions of the Foot

WILLIAM A. MILLER, MD

*Disabling plantar keratosis beneath a metatarsal head may be relieved by a simple plantar fasciotomy at the heel.*

**A** PLANTAR KERATOSIS is best defined as a callous with a deep keratinized core located beneath a metatarsal head and producing severe pain on weight bearing. These lesions do not involve the dermis and are, therefore, completely reversible without scarring if the bony pressure can be relieved. Thus, they appear to be caused by abnormal pressure of a metatarsal head, or in the case of the first metatarsal, from abnormal pressure of the medial or lateral sesamoid bone. Temporary relief of varying degrees can be obtained by appliances such as metatarsal pads or bars. Local treatment to the sole of the foot, such as a curettement of the keratinized center, steroid injections, or irradiation therapy usually fails with a true keratosis. If one of these methods of treatment produces a cure, the lesion probably has been misdiagnosed and was a plantar wart instead of a keratosis.

Probably the most frequent operation that has been performed for plantar keratosis is removal of the overlying metatarsal head. This will produce a complete cure of the keratosis in most cases. It has the disadvantage, however, that the attached toe frequently settles into the space formerly occupied by the metatarsal head and often

draws dorsally and then hammers, producing a painful corn as well as stiffness. Another frequent occurrence following removal of a metatarsal head is the formation of a painful callous beneath one or both adjacent metatarsal heads, which progress to further keratosis formation. When the keratosis is beneath the first metatarsal head, removal of the medial or lateral sesamoid may produce relief. Removal of the medial sesamoid may leave some residual tenderness in the plantar flap.

Du Vries<sup>1</sup> has popularized an operation in which he removes the plantar third of the metatarsal head through a dorsal incision. This year at the American Orthopedic Foot Society he presented long term follow up reports on over 100 patients who had this operation with about 85% satisfactory results. In the discussion of his paper it was quite apparent that the results were not nearly that good in the hands of many of those present. My personal experience also is that this operation results in a dorsal contracture of the metatarso-phalangeal joint with hammering of the affected toe and incomplete relief of the keratosis in a high percentage of cases.

In the last 18 months I have approached the problem of plantar keratosis in an even more indirect manner. The plantar fascia is the only fibrous tissue structure that spans the full length of the longitudinal arch of the foot.<sup>5</sup> It arises from the postero-inferior aspect of the calcaneus and extends to the metatarsal heads. Patients with keratosis usually seem to have very high arches (pes cavus). It would seem logical that if the

plantar fascia were divided at its origin from the calcaneus and its abnormal tension relieved that the metatarsal heads and sesamoid bones might not press quite as strongly on the sole of the foot.

Eighteen months ago a patient with a severe keratosis beneath the medial sesamoid bone and associated pes cavus declined to have the sesamoid bone removed. Its removal seemed to be the minimum operation that could afford her relief. She said that she was afraid of general anesthesia and would be happy to submit to any operation under local anesthesia that would have a chance of success. Under local anesthesia, a fasciotomy was performed just distal to the attachment of the plantar fascia to the calcaneus. The peratosis disappeared promptly and has not returned. Complete relief of pain was obtained very quickly. Since that time, six additional patients with plantar keratosis have been treated by plantar fasciotomy alone. All except one have obtained complete relief of pain with disappearance of the keratosis. One with some slight residual pain still has a little callous beneath the second metatarsal head. One of the patients had a plantar neuroma which was not recognized preoperatively because of the severe pain from the keratosis beneath the third metatarsal head. When the keratosis pain disappeared, the classical Morton's toe symptoms appeared. On closer questioning, he recalled previous similar trouble. He too had the fasciotomy under local anesthesia and to date has declined to have the neuroma removed. All other operations were performed under general anesthesia, which is much preferred to local anesthesia for this procedure. On direct

questioning several of these patients have some intermittent soreness in the heel that does not appear to bother them significantly. Obviously, these are short term results, but patient satisfaction has, to date, been greater by far than with other methods of treating keratosis in my practice.

The plantar fasciotomy was popularized by Steindler,<sup>7,8</sup> who wrote his first article on the subject in 1917. He recommended an incision about an inch and a half long on the medial side of the heel. He divided the fascia and then stripped the plantar muscles from their origins at the calcaneus. He would even strip loose the long plantar ligament. Most of his cases were performed for poliomyelitis residuals or club feet. Steindler's incision by its length often divides the medial calcaneal nerves, producing a permanent area of hypesthesia on the heel pad even in children. In adults it tends to damage the circulation sufficiently that it often produces a small skin slough and a slowly healing wound.

In reviewing the medical journals and textbooks, there is reference to subcutaneous plantar fasciotomy<sup>2</sup> but no description of where and how it is carried out. In one journal there is a picture of a fasciotomy at about the middle of the arch area. The only time I ever divided the fascia in the arch area of the foot, the ends of the fascia thickened almost in the manner of plantar fibromatosis.

My technique for the plantar fasciotomy is to make a one-fourth inch incision at about the middle of the old Steindler incision. This puts it about one finger breadth posterior to the tip of the medial malleolus and about three-fourths inch above the plane of the weight bearing surface of the heel on the medial side of the heel. A #15 Bard-Parker blade is used on a #7 handle. The fascia is divided blindly, first aiming superiorly and posteriorly to release the medial section of the plantar fascia including the abductor hallucis muscle. Then the knife is directed across the foot about one-half inch distal to the inferior point of the calcaneus with the surgeon's opposite hand on the lateral side of the heel to feel the blade and prevent buttonholing the skin. The lateral band of fascia is divided at this time. The main central plantar aponeurosis is sec-

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tioned by directing the cutting edge inferiorly and drawing the knife back out of the wound with the foot strongly dorsiflexed. Obviously the plantar skin should not be perforated. Care must be taken not to twist the knife while it is in the wound or broken blade retrieval could be a problem. The knife handle is then inserted to test for any undivided bands of fascia. In adults the plantar muscles are no longer stripped from the calcaneus, but some are divided as the fascia is approached and sectioned. In children a small periosteal elevator is inserted and muscle stripping carried out. One suture is placed in the skin and a walking boot cast is applied for two weeks. The cast should be very well padded, particularly under the metatarsal heads. In children the ankle should be dorsiflexed just past a right angle for maximal correction, but in adults the ankle should be at a right angle.

The following 13 paragraphs are numbered and include the different categories of patients for whom I have done plantar fasciotomies in the last ten years. Comments on the different categories will be made as clinical impressions. No attempt has been made to have these patients return for long term follow-up studies for this paper, but their last notes have been reviewed. This is, of course, a retrospective summary and pictorial records are not available.

(1) Children with idiopathic cavus or cavus with adduction, usually with pain.

30 bilateral; 2 unilateral; total 62 fasciotomies.

- 4 had gastrocnemius stretching.
- 3 had accessory navicular excision.
- 2 had McBride bunionectomies, one of these also having 1st metatarsal osteotomy.
- 1 had a large bursa removed from beneath the 1st metatarsal head.
- 1 had removal of spurs of the base of 5th metatarsal.
- 1 had removal of postero-inferior heel spur.

In these children the pain is usually located right at the postero-inferior aspect of the heel at the attachment of the plantar fascia. Sometimes the pain is more posterior and around the attachment of the heel cord. Patients with posterior pain are treated as a heel cord strain, that is, with an elevation

of the heel and a soft pad. If this does not prove effective within three months the fasciotomy is carried out. Almost all of these cases have had complete relief of pain. Many have an immediate increase in shoe size, one increasing  $1\frac{1}{2}$  sizes one month after surgery. A few have had the residual numbness from the old Steindler incision, as we did not start the smaller incisions until 18 months ago. We usually think of accessory navicular bones as accompanying flat feet, but the above three cases had painful accessory naviculars associated with pes cavus. Spurs of the base of the fifth metatarsal are rather rare and it is hypothesized that the lateral band of the plantar fascia may have been responsible for pulling this base into prominence. The lateral band of plantar fascia may also play a part in producing tailor bunions, particularly when the head of the fifth metatarsal actually is bent laterally. Metatarsus varus primus that accompanies so many bunions may be caused or aggravated by the tension of the medial band of plantar fascia.

(2) Adults with intractable keratosis beneath a metatarsal head.

4 bilateral; 14 unilateral; total 22 fasciotomies.

- 7 with fasciotomy alone.
- 7 had also a Du Vries type partial removal of a metatarsal head.
- 8 had total removal of one or more metatarsal heads.

In the last 18 months no Du Vries type or total metatarsal head removals have been done unless the patient had excessive scar tissue around the keratosis from previous surgery or treatment.

(3) Adults with removal of a plantar neuroma:

4 bilateral; 4 unilateral; total 12 fasciotomies.

- 2 also had metatarsal head callouses.
- 2 had bunionectomies.
- 1 had hammer toe corrections.
- 1 had removal of a tailer bunion.
- 1 had an extensor shift.

In the last couple of years since the thought first occurred to me I have not seen a patient with a plantar neuroma who did not have pes cavus or at least extremely tight plantar fascia. Pathologists say that these lesions represent fibrosis in the nerve rather than

## Keratosi / MILLER

a neoplastic process. It is my contention that the abnormal tension in the plantar fascia causes metatarsal head pressure against the nerve to produce this lesion. I am certainly not recommending that each patient that has a plantar neuroma removed also have a plantar fasciotomy, since they usually do so well after simple neuroma removal. However, those who already have some early metatarsal callouses or mild hammer toes would probably be well advised to have the fasciotomy at the time of the neuroma removal. I think this is particularly true if the patient is a teenager with very high arches and a neuroma that is red and irritated but not very large.

(4) Adults with postero-inferior heel spurs:

2 bilateral; 17 unilateral; total 21 fasciotomies.

Although Du Vries claims near perfection in removing postero-inferior heel spurs, most surgeons have some patients who experience residual pain. I have about 25% with some complaints persisting after surgery. The cases reported here all had the old Steindler incision, which is about the smallest incision through which the spur can be removed under direct visualization. Usually a half inch or so of fascia is removed along with the spur. I have recently simply done a fasciotomy and left a small spur, but the case is too recent to evaluate. My patients with postero-inferior heel spurs usually seem to have high arches, but the condition has been reported in many flat-footed patients. Perhaps abnormal tension in the fascia despite the low arch may have some influence in the production of this condition.

(5) Adults with painful heel with cavus (no spur):

2 bilateral; 1 unilateral; total 5 fasciotomies.

These have all been obese patients and have had only partial pain relief.

(6) Adults with multiple hammer toe correction:

1 bilateral; 1 unilateral; total 3 fasciotomies.

These totals are misleading as some of

the patients in paragraphs (9) and (11) also had hammer toes.

(7) Adults with a march fracture of a metatarsal with recurrent pain:

1 unilateral fasciotomy.

This patient was doing well after surgery, but was killed in a car wreck. In the last two years I have not seen a patient with a stress fracture of a metatarsal who did not have a high arch. I believe the tight fascia predisposes to the march fracture.

(8) Adults with postero-superior heel spur ("pump bump"):

1 bilateral; total 2 fasciotomies.

This condition is not a true spur. The postero-superior aspect of the calcaneus merely points too far posteriorly and rubs against the shoe. My observation has been that these patients all have pes cavus. The tight plantar fascia apparently rotates the calcaneus, pulling the postero-inferior portion more distally which then turns the superior portion more posteriorly. Photographs of x-rays demonstrating "pump bumps" in books on foot surgery by both Du Vries<sup>1</sup> and Giannestras<sup>3</sup> actually demonstrate a cavus foot, but make no comment in the caption or the text about the cavus. Pump bumps can usually be removed satisfactorily, but occasionally a portion of the protruding bone is actually the insertion of the heel cord and complete relief cannot be obtained. Not included in the above listed group is a case seen earlier this year in which removal of the pump-bump was supplemented with plantar fasciotomy; complete relief of symptoms was achieved.

(9) Adults and children who had a Jones tendon transfer or complete extensor shift:

1 bilateral; 9 unilateral; total 11 fasciotomies.

These patients and those listed in paragraph (10) have more classical diagnoses, including poliomyelitis residuals, club feet, and cerebral palsy.

(10) Children who had a heel cord lengthening and posterior capsulotomy simultaneously with or after fasciotomy:

3 bilateral; 4 unilateral; total 10 fasciotomies.

(11) Adults who had also a bunioneectomy:

3 bilateral; 4 unilateral; total 10 fasciotomies.

Patients with bunions often have painful callouses beneath the second and third metatarsal heads. Kelikian<sup>4</sup> refers to this as incarceration of the metatarsal heads. Even when the arch is not particularly high, there may be some abnormal tension of the plantar fascia in these patients. I have recently felt that I have relieved this metatarsal head pressure with fasciotomy. Most patients in this group were treated several years ago with the old Steindler technique, including muscle stripping. Many of them had such severe temporary trouble that when I finally dismissed them from treatment they would comment, "I am glad I had my bunion, nerve tumor, and hammer toes fixed, but I am sure sorry I let you cut on my heel." We have not had this complaint in the last 18 months since we have been doing the subcutaneous fasciotomy without muscle stripping.

(12) Adults who had sole lesions beneath the metatarsal heads: painful sesamoids, draining callous, and bursa requiring also removal of medial sesamoid:

4 unilateral; total 4 fasciotomies.

In the last three years I have treated three patients with epidermal inclusion cysts beneath the metatarsal heads. On only one of these was a fasciotomy done, as the other two patients were over 65 and it was not felt justified. I have not seen such cysts in the absence of pes cavus.

(13) Young adult with painful cavus with adduction:

1 bilateral; total 2 fasciotomies.

#### DISCUSSION

Yount<sup>9</sup> in 1926 published his article on the iliotibial band, in which he commented that Silver had, for many years relieved flexion and abduction contractures of the hip by fasciotomy of the iliotibial band at the knee and had asked him to work out the anatomy of why this could be done. Any senior orthopedist experienced in treating poliomyelitis victims can verify the work of Yount and later Irwin that a contracture of the iliotibial band of the fascia lata can produce flexion and abduction contractures of the hip, flexion contractures of the knee, external rotation deformities of the leg, pelvic obliquity, and secondarily, scoliosis and equinovarus deformities of the foot.

One year after Yount's article Rugh<sup>6</sup> commented, "For over a century the plantar fascia has been recognized as an extremely important factor in the development and maintenance of foot deformities, especially those of talipes cavus and varus, though whether as a primary or secondary agent has always been an unsettled question." Contracture of the iliotibial band is easy to test for, while that of the plantar aponeurosis is clinically difficult, if not impossible, to evaluate by virtue of its location and size. Since the cause of so many foot deformities is unknown, it seems reasonable to attribute some of it to the plantar fascia, since it does appear to be involved in a multiplicity of lesions. Just as bony deformities of the lower extremity and back cannot be resolved by fasciotomy of the iliotibial band, neither can bony deformities of the foot be resolved by plantar fasciotomy alone.

At one of his stump speeches Abraham Lincoln is reported to have been asked by a heckler, "How long should a man's legs be?"

Lincoln replied: "Long enough to reach the ground."

How high should arches be? ☐

#### SUMMARY

It is the author's opinion that tightness of the plantar fascia causes or at least accompanies many common clinical conditions of the foot. A small series of patients with plantar keratoses treated by plantar fasciotomy at the heel have obtained good, short term clinical relief. The use of fasciotomy in conjunction with other operations is also discussed. ☐

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## The Health Crisis and Health Care Administration

*Harris D. Riley, Jr., MD\**: Physicians as well as the public are becoming accustomed to reference to the term "health crisis." New legislation, reports of public and private commissions, the deluge of articles and books concerned with health and medical care and the large variety of experimental programs both in medical education and in the organization and delivery of health services are testimony to this fact. Fundamental to any consideration of health services are the supply of health manpower, the methods of delivery of health services and payment for these services. Because of the timeliness and importance of this subject, we are deviating today from the usual pattern of Pediatric Grand Rounds and will not present a clinical case. Instead the "health care crisis" will be discussed. Our speaker today is Charles M. Cameron, Jr., MD, Professor and Head of the Department of Health Administration in the College of Health, University of Oklahoma Health Sciences Center. Doctor Cameron has had extensive experience in health planning and has served as a consultant to many different health facilities and agencies. By virtue of his training and experience, he

is well equipped to discuss this subject with us today.

*Charles M. Cameron, Jr., MD\*\**: The topic that we are going to deal with today is concerned with innovations that we anticipate in medical care delivery. The impact of these anticipated changes on the structure of health care in this country is of tremendous significance, and I would hazard an opinion that the future which we as physicians will experience will probably be as much changed by some of the issues that we are dealing with today in the organizational format as our clinical practice has been changed in the past by developments such as antibiotics, blood transfusions, organ transplantation, immunology, and some of the other developments that we recognize as major landmarks of scientific progress. My enthusiasm at being here with you grows out of the fact that over the years in working in community medicine, medical administration, public health, health planning and related fields, I have identified pediatricians as "kindred souls" who share many of the concerns and many of the ideas about how we might be more effective in improving the fate of our patients in the communities in which we work. First, I would like to comment briefly about why change and innovation is being thrust upon us in health care, because I do not think the particular kinds of changes that are coming forward mean very much

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unless we can understand the basis of the specific areas that have been singled out for change.

We are all aware that the time we are living in is one in which many of our convictions about how good our health care is and how good our health care system is have come under the challenge. It is interesting that most of the challenge is arising outside our own profession. This is somewhat a unique phenomenon. If one looks at the great institutions of our society, one sees that many times the thrust or demand for self-renewal comes from within. At present in our society one sees the church, for example, on the basis of an internal concern, beginning to examine its role. Educational institutions from within are beginning to question their roles and the appropriateness of various actions as well as how well they are doing. Within the health care system we are seeing that a great deal of the pressure to change things is arising from outside the profession rather than from within the profession. The current *New England Journal of Medicine* has an editorial that points out that one of the more difficult aspects of the current debate on issues such as "health care right" and the debate about how we can make health care more accessible has come about because there is a sharp disparity between the leaders of the medical establishment and other leaders in the society.

Many of the individuals in the key leadership in medicine appear to be somewhat content and seemingly quite self-satisfied. Other sections and other voices such as political leaders, labor leaders, social movement leaders of various persuasions and many everyday citizens are the ones speaking up in terms of criticisms of the health care system. This is an area where very obviously the responses one receives in bringing up these issues are emotional because we as physicians have a tendency to react in a very personal way when anything is said that suggests that the whole health care apparatus is out of tune or perhaps needs tuning up in some way. No doubt this speaks to the deep dedication that physicians have to their profession. I sometimes wonder if we as physicians must defend the entire health care apparatus since certainly it extends far

beyond the bounds of what we as physicians may do.

A number of our national publications in the last 18 to 24 months have featured extensive articles dealing with what they call "the health care crisis." This comes at a strange time in that we speak of a crisis in health care at a time when actually most Americans are healthier than they have ever been before and when most Americans actually have access to more and better health care resources. Yet, we still hear health care crisis. One hears cries of inadequate access to care and suggestions that quality is not all it perhaps should be. Some have suggested that the crisis is largely a political device recognizing that health does have sufficient visibility at the present time that along with certain other issues it holds promise of being a factor in the upcoming political campaign. It is interesting that all of the major contenders for the office of the President, be they Republican or Democrat, have something about health in their campaign package. They vary considerably, but it would appear that among the political leaders the debate is not whether or not we need to make changes, the debate is what kinds and amounts of change will be politically most acceptable.

What is the basis for this crisis business? The first criticism that pediatricians have all heard about is the one based on the health status indicators. Frequently statements are made that the examination of health records of our population show broad disparities between the health status of certain population groups. For example, we are aware of the ethnic differences and the contrast in various health status indicators between whites and non-whites here in our own country is impressive. This is also evident when one examines the parameters of suburban and central city populations. From these and other findings, we recognize that all citizens have not benefited equally in the improvements that have been made in extending longevity, and reducing disability, death and morbidity.

The other part of this concern is the international numbers game, and I am sure that again you are aware of the games that people play trying to either support or deny the unfavorable impressions you get when

## *Pediatric Grand Rounds*

you compare some U. S. mortality figures or other health status indicators with those of other countries. I suppose there is hardly anyone in the medical establishment that has not heard that the U. S. infant mortality is much higher than that of some other countries. And having said that, then the speaker usually has to retreat because there is always in the audience someone who immediately rises up to say that "Yes, but the bookkeeping methods are different." It is not correct to compare infant mortality in a country like ours where we have a reasonably sophisticated death registration system with the country somewhere else where the church does this or perhaps more primitive methods are used. A more telling argument is, I suspect, the one that says "Yes, but in infant mortality you must remember that it is not just what the physician does that influences infant mortality," infant mortality being a product of environmental conditions, child-rearing practices and knowledge, nutritional factors, possibly genetics and a lot of other influences. To me, however, that rebuttal really emphasizes the point. If indeed infant mortality does reflect a great variety of things concerned more with health than with disease, then the argument is being supported that our health care system is not giving appropriate attention to these environmental, nutritional, educational, and other kinds of factors that are important.

Related to the "numbers game" about health status are the many articles that you read (and we have had more than our share in Oklahoma) about the maldistribution of health resources. You see, for example, headlines proclaiming that there are now 134 counties out of over 3,000 counties in the U. S. that have no doctors. What we are perhaps coming to is regarded by some as the "Laverne syndrome." If you are familiar with the Laverne syndrome here in Oklahoma, you know that that is the community in the northwestern part of the state where the last doctor left the town several months ago, the hospital has been closed, and the people of the community are bereft and understandably concerned, agitated, and anxious about what they can do to attract a physician to the community and hopefully

reopen their institution. We see this as a pattern.

Interestingly enough, what this is, is a small symptom of a much larger syndrome wherein we see population at large grouping in cities, but with a higher percentage of health resources grouped in these same cities. About two-thirds of our population are city dwellers, but about three-fourths of our health resources are clustered around these same cities. Some studies show that if you are seeking certain kinds of medical specialists, do not bother to look anywhere outside of Oklahoma City or Tulsa because they are available few places anywhere else in the state.

We see some interesting and not entirely completely understood statistics about the distribution of hospital beds. There is a startling variation in the ratio of hospital beds to population in many parts of the country. This is explainable in part in that hospital beds cost money and that places of higher per capita income and economic wealth are more apt to be able to build and support hospitals. When you compare some of the health status indicators with these same hospital bed ratios, you find that the healthiest people do not necessarily live in the places where there is the greatest abundance of hospital beds. One international study suggests that countries with much fewer hospital beds than we, again using certain kinds of indicators, appear to show up higher. Be that as it may, I am sure that the imbalance and distribution of resources has much to do with the citizen's anxiety about his health care. The doctor in the rural areas and the rural hospital, small and perhaps incompletely equipped though it is, has become symbolic of health care in the minds of many of the people of this and other states.

The third area that is discussed when people are talking about what is wrong with our system is that if you try to look at health services as a system rather than a series of discrete parts you see that the configuration of the system has built into it a good many barriers to effective operation and coordination. You all have heard anecdotal gripes, I suspect, about duplication of histories, laboratory work and examinations that occur as patients move from one care setting to

the other within the system. Duplications are a lot of work. While it may be good medical care to verify findings, it can also be very expensive. It also can be a duplication of effort that some feel we should try to eliminate. You have also heard many complaints, I suspect, about the duplication of expensive facilities and equipment in many communities. This is known as the "cobalt machine syndrome," and there are numerous recounts of the communities in this country where cobalt machines have been installed in institutions across the street from each other. There are also some interesting reports about open heart surgery suites in this country and the proportion of them hardly, if ever, used. At the community level, we hear a great deal about duplication of program efforts that may be dealing with areas such as crippled children where there may be a multiplicity of local agencies and institutions that are set up to care for certain categories of the sick and disabled while other categories fall through the cracks, so to speak, with no community source available to serve them. These are but symptoms of the complaint that people cite when insisting the health care system at present has incongruities, overlaps, and underlaps built into it.

The fourth area you hear mentioned in connection with the crisis in health care is not heard as frequently but is most serious in that it concerns the issue of quality. The assumption seems to have been that the quality of health care is very high everywhere. While I am not sure that all those within the health care professions have believed this, the public has believed it. Their assumption is that whatever I have available to me in my community is of the same uniform high quality as you find anywhere in the country. And we have seen again, I suspect, a number of instances that creep into things like the Congressional Record and lay publications, some actually filtering out of the scientific literature into these lay publications. It raises certain questions about quality. The most recent one that I have seen in our current literature here, namely *The Daily Oklahoman*, was the story about two weeks ago which suggested that some unqualified physician working in a state mental hospital in another state had

been responsible for the deaths of 200 patients. I do not know whether it is true or not, but this is the kind of issue, I think, that raises questions in the minds of politicians and others when the issue of the quality of health care comes up.

The fifth and last factor that has precipitated concern about the health care issue is that of cost. A great deal of the attention that health care is getting at the present time is directly related to cost factors. If health care did not cost so much, I do not think politicians and many other people would be evidencing so much concern about it. Economists and others suggest that the percentage of our gross national product that we devote to health correlates very highly with the visibility that health care has in the political arena. The more we have spent of our resources on health care, the more this issue is beginning to emerge as a concern for many people. Medical economists are interested in the area because they are examining the question: At what percentage of gross national product (GNP) spent on health will drastic interventions be indicated or justified from the national level? The figure is now about 6.8 or 7% of the GNP spent on health. One investigator has postulated that when health begins to approach 10%, we will see some drastic response on the part of the government to institute cost controls. I suspect that whether we like it or not, no matter what it does to our ego about how important health is, the importance of health in the minds of many people is directly related to cost. With cost factors removed, a great deal of the interest that we are suffering from or enjoying will be removed.

In the face of these five concerns what kinds of innovations are we hearing about? Again, there are five areas with major thrusts for innovation affecting health care organization and delivery. The first one is innovation in the actual organization of delivery systems. The second area of innovation is innovation in the types of manpower that we are using in the provision of health care and the corollary of this are some innovations in the mechanisms for developing health manpower. The third area of innovation I have called the technological innovations that pertain particularly to organi-

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zation and delivery referring to the use of computers and data processing and related efforts. The fourth area of innovation is concerned with mechanisms that deal with consumer input and consumer involvement in decisions about health. The last area of innovation is the one about which you probably have heard the most, namely, the financing innovations through National Health Insurance and similar proposals.

The "show piece" among those interested in this area of activity currently is the Health Maintenance Organization (HMO). The HMO is being featured in Mr. Nixon's current administrative efforts in the health field. Many people have been confused by the HMO concept because the promoters of the proposal and the principal promoter is a physician, Doctor Paul Elwood. In introducing the idea he said that there are no prototypes that can be described. There are HMO-like organizations that we can discuss, but it has been stressed that there is nothing at the present time that represents the exact HMO model as envisioned. In Doctor Sidney Garfield's appearance here a few months ago, he talked about the Kaiser Permanente Plan and referred to the fact that he thought his organization was being copied by those who wish to start an HMO, but that he was concerned that they might copy the bad parts of his operation as well as the good parts. This suggests then there is still much to be decided about the HMO.

What is this new organization of medical personnel which will emphasize primary care, prevention, health maintenance, and a number of other things? If you think of the HMO in this context, then it becomes reasonably apparent that you are going to consider something different from the examples of prepaid group practice as we see them at the present time. While the prepaid group practice will certainly be a nucleus for an HMO, there will be many other features included if it indeed will address itself to maintaining the health of a population rather than dealing with disease and injury after it develops.

A closely related pattern is the Medical Care Foundation which is organized medicine's response to the HMO that sees medical

societies banding together to create new corporate entities with whom various patient populations may contract for care. The contract between the groups seeking care and the medical foundation may embrace capitation principles in that people would be enrolled at so much per person per year. In most of the foundations, however, the actual compensation of the physician who renders the service is on a fee for service basis. Again, there are variations of this pattern, but again, across the land we are seeing medical care foundations emerge as new delivery mechanisms altering the conventional solo practice, fee-for-service model for health care.

We have had neighborhood health centers in urban areas for a long time. The neighborhood health center is now in its third generation of evolution, attempting to deal with some of the early criticisms about neighborhood health centers being better than what was there before but still isolated from the main stream of health care in the community. Attempts are being made to remedy this criticism through Neighborhood Health Center Networks wherein the free-standing health center, perhaps in the deprived area of town, is being organizationally linked with teaching hospitals and other kinds of institutions so that it does not stand as an isolated unit. Somewhat the same model is being discussed for rural areas using the idea of the family health centers for rural areas. Again, incentives and efforts are being made to promote the establishment in the rural areas of institutions with ambulatory care as their primary thrust but with a smaller number of beds, perhaps on the order of four, available for at least overnight observation of patients. The hope is that this type of operation may attract a group of physicians in group practice. There are other organizational changes coming along as well. The corporate hospital structure is the hospital "conglomerate" wherein the private interests are now buying up groups of hospitals. One of the better known ones is the Good Samaritan operation in Arizona. The organization has purchased several hospitals and is attempting to operate them not only in the interest of profit making but in the interest of good high level community service. The conglomerate proprietary move-

ment is not unusual in the nursing home field.

One also hears about the new specialized type of care institution being started with a very specific need in mind. This is the "surgi-center" concept, really a short stay institution devoted entirely to caring for patients with a certain range of surgical needs. Recently a pediatric journal noted where one institution was devoting a certain number of beds for overnight observation of pediatric patients—again something of a transitional pattern from the classical outpatient and inpatient type model. There are other innovations, but this illustrates a major area of thrust because of the feeling that much of the criticism that we hear about high cost, inequities, lack of access and other aspects could be remedied if we could but somehow make the system in which care is delivered more rational and more efficient.

The second area is manpower innovation. The main threads in this area appear to me to be the physician associate and the physician assistant categories wherein one sees a variety of experiments going on, many of them being patterned after the Duke experience. Other variations on that same theme, such as Medex and some of the others, as well as experiments within the nursing realm wherein nursing, as a profession, has quite appropriately reacted to the physician assistant idea with variations of its own. They are developing nurses whom they elect not to call physician assistants but who do have broader roles and broader responsibilities in the nursing area.

A big issue seems to be the debate going on as to whether the assistant should be specialized in the same way that those they are assisting are specialized, or whether the assistants should be generalists. This gets to be a question of viewpoint. How do you see the physician assistant—as a generalist, or a specialized assistant dealing with neurology, orthopedics, pediatrics, etc?

Another issue that is much confused in some of this rhetoric is whether the categories are assistants to a provider or substitutes for a provider. These are two quite different models. Are we thinking of someone who is going to work at the elbow of a primary practitioner or someone who is going to take the place of that practitioner in

remote rural areas, in ghettos, aboard ship, and in other places? In connection with manpower again, it is very timely to note some of the things we are hearing about here in Oklahoma about the best ways to produce health manpower. This concerns innovations such as the area health education center (AHEC). I suspect you will be hearing a great deal more about the AHEC model as the months go on because it was stimulated chiefly by the Carnegie report and we have seen this concept centered on by the current administration in Washington with some indication that large sums of money will be invested in the AHEC idea.

Leadership may come from the National Institutes of Health which has been a long-standing and warm friend of health institutions over the years and which, apparently, would like very much to be involved in this development. The Regional Medical Program and the Veterans Administration both are quite interested in the AHEC concept and the extent to which a leadership role in helping states and communities develop these things would be supportive to their own interests.

The third area is the use of computers and automation. This is a very attractive area for many physicians. There is a potential for changing the way one practices based on the ways we can use computers. In those situations where you have the computer "on line" as you enter new information, it becomes part of the updated, ongoing record so that any subsequent feedback includes the latest data in the system. This can be very exciting. Most of us have to deal with static automation where what is coming back to us out of the computer reflects a lag that is built into many of the systems. I am particularly intrigued with some of the efforts going on in the laboratories where the laboratory scientists have been able to couple some very exciting new pieces of hardware such as the multichannel analyzer directly into a computer.

Some system engineers and industrial engineers have suggested that perhaps we in the health field should exercise some caution in the extent to which we expect dramatic improvements in our efficiency as a consequence of automation. While they are not saying that the computerization of some pro-

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cedure or some aspect of our operation will not have certain benefits, they are saying that the benefits may not turn out as great as it would appear at the time we are being sold by some of the very persuasive computer salesmen. The other shortcoming they have observed is the considerable cost that goes along with introducing this innovation into a system that, for the most part, still deals with non-automated systems.

The fourth area mentioned was the effort now going on in society to provide new mechanisms for consumer involvement, new mechanisms for the setting of standards, new mechanisms for the conduct of planning, and new mechanisms for insuring quality control. The Regional Medical Program is one example of a new program thrust to share some of the technology and know-how of the medical center with the more remote areas. Part of this has been realized by their continuing education efforts and also by demonstration programs.

The Comprehensive Health Planning effort is an attempt to involve consumers and professionals in dialogue about the important health problems concerning the consumer with regard to access, with regard to finance, and with regard to the terms and conditions under which health care is available. Findings to date suggest the consumer is less interested in trying to tell the doctor how to practice medicine, but is quite interested in saying, "I do not like what I have to do in order to avail myself of your services." This same sort of new dialogue is beginning to develop.

Other approaches involve standard setting which is an area that leads us back into some professional concerns. For a long time we have dealt with utilization and review committees as something required by the third parties. We are now hearing a great deal about professional review organizations and quality control on a peer group basis. Much debate is occurring as to the extent to which organized medicine should exercise this control independently of some sort of outside motivation or influence.

Then we come to the last area of innovation and that is the financing area. There

are still a number of people who are attracted by the relatively simplistic notion that many of the problems in health care could be remedied if we had more money. They insist if we had more money we could build more medical schools and we could produce more doctors. If we could produce more doctors, then more of them would enter practice and if they practiced, everybody would be healthier and happier, and so forth and so on. Those who hold the opinion that money alone solves the problem are sometimes shaken when they are reminded that the only major innovation in the last few years was the one that put more money into the existing system. I am referring, of course, to the medicare and medicaid programs which, in essence, were really a test of the idea of whether more money alone would remedy the problems of care for the aged and the poor. This experience has led me to the conclusion that increasing the demand for service through removing the financial barriers for certain segments of the population does not in any way remedy some of the major problems with which we are dealing today. In fact, it probably intensifies the problem.

Rashi Fein, the Harvard economist who is seen by some as, perhaps, a radical in the ways he thinks health care ought to be reformed, suggested we ought to move immediately toward removing financial barriers. He said this will so increase the overload on the health care system that people will rise up and demand that system reforms be instituted. This suggests how some of the more radical and perhaps some of the more thoughtful researchers in this field look at the problem.

All of this leads me to conclude this part by suggesting that, perhaps, you would be interested in studying the Kennedy proposal, the Administration proposal, the AMA's medicaid proposal, and the health insurance companies' proposal. Without bogging down in the details, it is perhaps sufficient to identify that all of these proposals, except the AMA proposal, would include some modifications to the health care system. They seem to say that financing changes alone will not be enough. Restructure of health care through certain financial incentives and other means is called for and

hence you have the Kennedy plan, the insurance plan, and to a degree the Nixon proposal, saying we must change the system as well as increase the financing. The AMA's plan says we will leave the system as it is, but we will remove the financial barriers for certain numbers of people. These are the essential differences. The implications for those who are anticipating practice is that whatever happens in the health financing innovation area, you can look at the legislation and pretty well anticipate its impact on your practice. As I read it, the preponderance of opinion is that changes will be made in the health care system as well as in the financing system. I suspect we will do what we have done traditionally in this country, and that is evolve a compromise between the major contenders. For example, whatever new type of health financing system is approved, we will find that the insurance interests will remain or retain a role as the financing or fiscal intermediary. I suspect that we will have more standard setting, in terms of many of the things that in the past have been left entirely within the dictates of individual concern. I am very much intrigued with the observation that when our national financial commitment reaches a certain level, this becomes a stimulus for a society or government to take regulatory action. We have seen this in a number of other areas in society such as public utilities, agriculture and commerce.

I would close by reiterating that these are very dynamic days in which we are living. The changes that are now being contemplated, I suspect, in some form or other will be brought into being within the next five to ten years. On a day-to-day basis, these changes will materially influence the expectations that many of us have about medicine and medical practice.

I started by saying that much of the stimulus and some of the uncertainty and discontent is coming from outside our profession. But let me say that I personally have been gratified that in recent years we are seeing a group of people within the health care profession evidencing interest in a new field of investigation and research. For a long time when you mentioned health services research, nobody knew what you were talking about. But fortunately, we are identifying

that research. Investigation, and experimentation in areas dealing with how care is planned, organized, evaluated, delivered and financed are emerging as respectable areas of scientific inquiry and interest for many in the health services, and I hope that there are some of you present here who will have interest in this field.

*Doctor Riley:* I would like to thank Doctor Cameron for a very interesting talk and for being with us. Let's take a few minutes to see if there any questions.

*G. B. Humphrey, MD\*:* Well, I have a comment more than a question because I also enjoyed your presentation. Because this audience contains future MD's who may also be members of professional societies, I would like to comment that I feel that the problems that you presented are certainly the concern of the medical community, but not the sole responsibility of the medical community. A certain amount of flexibility in regard to philosophy and structure of health care delivery, that is to say private patients' fees for service, is going to be necessary and that input from the medical community should be positive rather than negative or reactionary. I hope some of our students will concern themselves to some of the problems you presented today.

*Doctor Cameron:* I quite agree. Thank you for your comment.

*Tom J. Halpin, MD\*\*:* Malpractice has been in the forefront recently. What do you see is the effect of malpractice insurance on physicians assistants? How are they going to be covered? Will the physician have to take responsibility for this?

*Doctor Cameron:* Well, I think the answer to that depends on the legal enablement we work out for the practice of the physicians assistant. If the forces that are up pushing to include the physicians assistants in the medical practice act are successful, then it seems to me that the malpractice liability of the physicians assistant will be like that of any other person that the physician involves with himself in the care of his patients. If on the other hand (as I am sure will come sooner or later) physicians assist-

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ants say, "I want to follow in the footsteps of all of the other healing professions and I want independence and, therefore, I will assume my own liability." So, I think it depends on how the physicians assistant is integrated into our current legal system for licensing of the healing arts.

I also suspect this entire system is going to undergo some change since at present questions are at least being raised. Do we need 19 separate licensing boards to exercise the functions of the state? Do we need it on a state basis? Why could you not license all professions on a national basis? But, if you do need some sort of licensing at the state level, do you have to have 19 separate boards? Is there not some way that this can be handled under another system? I thought at first your question was addressing itself to the extent to which I think malpractice is an expression of consumer discontent, and I know some people feel very strongly that this is a legally and socially acceptable way of registering disapproval of the system, and perhaps the physician by bringing him into court. Do you have an opinion on that?

*Doctor Riley:* I do not. I would like to ask you another question that concerns all of us acutely, particularly those who have medical responsibility for children. From your experience in health planning, could you hazard a guess as to what is going to happen about the increasingly large problem of emergency room care?

*Doctor Cameron:* Well, my observations on this are, I think, consistent with most of the observations of others who have studied the situation. Our emphasis seems to have been on developing emergency room facilities as if their only utilization was for true emergencies. We see repeated studies across the country where the emergency room has taken the place of the primary physician because physicians' offices are not open when parents feel the need for advice and care. I suspect that the big thrust will be to use the emergency room as a nucleus for a new kind of ambulatory care facility. We as physicians may think that this is an unnecessary use of the emergency room. But if the parent or the patient feels they need

care, then they probably do need care. Therefore, our dedication ought to be serving people who appear at the door of the emergency room. Is our present array of emergency room technicians and resources adequate if we are going to broaden the scope? The answer is no. What I see happening is the emergency room emerging someday as the intake mechanism for an expanded network of ambulatory care in all types of services. Someday you may find next door to the emergency room something called a convenience clinic, a non-emergency ambulatory care setting to take care of the people who are now taking up the resources of the emergency room because it is the only place to go. Obviously, there are still parts of Oklahoma and parts of the U. S. where we have not developed first rate care for the bona fide emergency problem yet. Even the people who really need emergency care are not able to get it in too many places, so that remains a problem.

*Doctor Riley:* You are exactly right. One of the real concerns is that with the deluge of non-emergency patients in the emergency rooms, there is a significant delay in providing care for patients with truly emergent conditions. Any other comments or questions?

*Doctor Ordway:* Related to the inquiry a moment ago about malpractice insurance, it bothers me to see that the decision of whether to take an X-ray or to do a particular test so frequently is decided not on the basis of whether it does the patient any good, but because it is advisable for medico-legal reasons. This is poor clinical practice. Perhaps related to this is the way we seem to be moving away from clinical observation into reliance on laboratory tests. I commented some time ago on the difficulty of getting just a potassium from a hospital laboratory without also getting a CO<sub>2</sub>, a chloride, and a sodium. But the numbers game has changed since then and now we have to ask for the . . . I forget the exact term . . . the "titillating 12" or something like that. Then when the figures come back we look at them and decide whether any of them suggest a diagnosis. All of this, of course, relieves the physician of the responsibility of having to look at his patient and think about his problem. Now maybe this

is going to play into the hands of the physicians assistant who does not have the background for the same sort of evaluation that is expected of the physician.

*Doctor Cameron:* I quite agree. I think the possibility you may have to go to court does color decisions as to what you order or do not order. I think that, perhaps, some of the hardware has made it easy to abuse laboratory procedures; where we do have multichannel autoanalyzers connected up with computers this sort of thing is encouraged. The other thing I was thinking as you spoke, Doctor Ordway, was about some of the statistics that come from surveys of medical practice that show that the actual lapsed time of contact between the patient and physician is usually under ten minutes. I wonder if the reliance upon laboratories is something we have perhaps been forced into because of the pressure of patients and the limited amount of time we have to see them in the private setting.

*Doctor Wes Whittlesay, MD\*:* I had something I would like to sort of add in here in response in part to Doctor Ordway's comment and that is that I certainly agree with you that there is nothing like looking at the patient, but also, there is nothing like certain lab work. And I have, right in front

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of me, a report which came in today of a patient who came into a hospital and was there four days and died. The family collected a judgment of \$225,000 for failure to diagnose diabetes because nobody ever ran a urine for sugar. So, the point I would make out of all of this is that there is a certain standard of care, and if that standard of good care includes laboratory work, then that standard includes laboratory work, and in my situation I can get blood sugar for \$5.00 or I can get a complete chem-12 profile for \$5.00. There is no difference in cost to me or to the hospital or the patient. Therefore, if the standard of admission is a screening glucose, then the standard of admission from a technological viewpoint becomes a chem-12.

*Doctor Ordway:* I think that what you are saying is that the more you get for the same money, the better it must be, even though eleven/twelfths of it is not necessary.

*Doctor Riley:* For the members of the audience who are wondering how Doctor Cameron gained his background for such a fine presentation, I can tell you. He acquired it when we were classmates and members of the Witherspoon Club, which was the finest poker club that has ever come along. Thank you very much, Charlie.

*Doctor Cameron:* Thank you, Pete. It was a real pleasure. ☐

P.O. Box 26901, Oklahoma City, Oklahoma 73190

## FIFTH ANNUAL MYRTLE LAUGHLIN MEMORIAL LECTURE in HEMATOLOGY

January 18th, 1973

4:00 p.m.

East Lecture Hall—Basic Sciences Building

University of Oklahoma Health Sciences Center

Oscar D. Ratnoff, MD, Professor and Acting Director of the Department of Medicine, Case Western Reserve University, Cleveland, Ohio, will present "Hemophilia and Von Willebrand's Disease." ☐

## *Organized Medicine and The Developing Oklahoma Public Health Service*

JOHN W. SHACKELFORD, MD, MPH

*Oklahoma medicine played a vital role in establishing the State Board of Health. What role should medicine assume in this time of rapid change?*

WHEN OKLAHOMA became a state in 1907, the constitution provided that the Legislature shall create a Board of Health . . . and prescribe its duties.

Implementing legislation stated that "A Board of Health, to be in charge of a Commissioner of health, is hereby created. Said Commissioner shall be appointed by the Governor (with a term coterminous with that of the Governor) for a term of four years. Said Commissioner shall have supervision of all matters relating to public health." No qualifications for the position were given, but all governors respected the insight of

medicine in matters of health and all commissioners held a Doctor of Medicine degree.

Each governor, after Governor Lee Cruce, 1911-1914, and until Governor Robert S. Kerr, 1943-1947, appointed a new commissioner soon after taking office. Most appointments were on a basis of friendship and/or patronage.

Despite the ins-and-outs with changes in governors, health workers, in the main, seemed to be dedicated and rendered service as best they could. Obviously, there were many limitations because of the state of the art and the lack of specialized training of workers involved.

The first milestone in the public health mission after statehood was that of the first legislation in providing for a department of health. Another was the setting of a precedence in terms of bringing the Science of Medicine into the role of an organization charged with the protection and promotion of the health of the state's citizenry.

Doctor J. C. Mahr of Shawnee was the first Commissioner of Health. He was appointed by Governor Charles N. Haskell and

served through the administration of Governor Lee Cruce, the second Governor of Oklahoma. Available reports indicate that Doctor Mahr and his early-day successors had insight to the health problems of the day and faced the issues of the time with courage and conviction.

A new state, a new land! Communicable diseases, acute and chronic, were rampant. The lack of sanitation facilities was evident everywhere. Almost 700 people died of typhoid fever in 1910. Periodic outbreaks of smallpox, often reaching epidemic proportions, occurred in the early days of statehood as had been the case in territorial days. In the spring of 1910, a news article by Doctor J. W. Riley, Superintendent of Health in Oklahoma City, referring to the winter of 1909-1910, stated that there had been 400 cases and 45 deaths from the disease. Mass vaccination campaigns were under way to combat the epidemic. "Many of these cases were vaccinated at night with the aid of the police . . ." <sup>1</sup> Malaria was, in like manner, levying its toll in terms of sapping strength as well as taking lives.

Physicians over the state were acutely aware of the fears, the anxieties, and the economic loss due to these recurring outbreaks of disease. They had a basic understanding of their epidemiology as well as pathology—a feeling that somehow, somehow they could be controlled—and awaited a leader to come up with a plan which would give promise of results in terms of lessening the impact of periodic outbreaks. Many physicians, as part-time county superintendents of health, launched immunization cam-

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*Since graduating from Tulane University School of Medicine, John W. Shackelford, MD, has been certified by the American Board of Preventive Medicine and Public Health. Before his retirement in November, 1972, Doctor Shackelford was Chief, Mental Health—Maternal and Child Health Services with the Oklahoma State Department of Health. In addition he was a member of the faculty in the Departments of Pediatrics and Obstetrics at the University of Oklahoma Health Sciences Center. Doctor Sheckelford is a member of the American Public Health Association and the Oklahoma Public Health Association.*

paigns, promoted water purification projects and extension of sewer lines, or gave their time in physical examinations of school children. There was a readiness to do something, to get behind a leader who could and would develop a program and communicate with them.

The early twenties were restless years. The people of the state were looking for better leadership in government, including health. The state's picture needed improvement. Jack Walton was elected Governor; Doctor A. E. Davenport was appointed Commissioner of Health. Governor Walton was impeached in November of 1923. Lieutenant Governor Trapp succeeded him. Governor Trapp had made few promises for election and had a freer hand in picking his cabinet and choice of helpers to operate state government. The chaotic conditions existing the year before had a sobering influence on the people; there was a readiness for good administration in government. <sup>2</sup>

Doctor Carl Puckett had served several years as part-time County Superintendent of Health in Mayes County. He had become interested in community health and was responsible for several public health movements in that county. Appreciative of the importance of a close-working relationship with physicians, he had obtained the respect of the doctors in his county and many others over the state. Physicians looked on him as an individual with a very real concern in community health, one who would make a concerted effort to deal with some of the health problems that existed. He applied to Governor Trapp for the position of State Commissioner of Health and, in his words, talked about a program in contrast to a personal favor. "Largely through the support of physicians in the state and other friends, I received the appointment as Commissioner of Health and assumed office on January 7, 1924." <sup>3</sup>

It has been said that reorganization and change marked the administration of Doctor Puckett. He is credited with the statement that he didn't know much about the operation of a state health department and its satellites of local health organizations, but he was willing to learn.

At this time, the Rockefeller Foundation had become interested in local health depart-

ments as a medium for the delivery of public health service. Contact was made with the Foundation which, after some deliberations, resulted in their sending Doctor D. T. Bowden to the state to assist in the development of local health programs, as well as concepts and organizational structure of the State Health Department. The Foundation also gave assistance in financing the state health system.

In the main, the state organizational plan as it exists today was established in Doctor Puckett's administration. Programs, which would mean the delivery of service at the local level, were brought into being. Through this system, long-standing problems were being attacked at their source on an ongoing basis. By 1920 standards, the health program could have been rated good.

In 1927, Henry S. Johnston took office as Governor. Doctor Puckett was replaced in the spring of that year by Doctor O. O. Hammonds. Governor Johnston was impeached and William J. Holloway succeeded him. Governor Holloway appointed a new Commissioner of Health, Doctor Clyde W. Beson.

William H. Murray succeeded Governor Holloway in January of 1931. Governor Murray, in keeping with custom, appointed a new Health Commissioner, Doctor O. N. Bilby. Financial support for the department was reduced in the 1931 session of the legislature. By the beginning of the second biennium in 1933, Governor Murray had decided little was being accomplished by the department and practically closed it. Other than a small laboratory staff, there were only four employees at the beginning of the Marland administration in 1935. All except two local health departments had been closed and these, Seminole and LeFlore, had reduced their operations to the level of an indigent medical service and a few minimum gestures at public health activity.

No doubt, with five new Commissioners of Health in ten years, little was accomplished, particularly when little attention was given to qualifications. Most of the Health Department's staff held their jobs on a patronage basis and had no more tenure than did the Commissioner. What could be expected in such a state of affairs?

Physicians from territorial days and the early days of statehood, when recurring outbreaks of communicable disease took lives and sometimes brought panic to communities, when even basic sanitation was lacking, wanted a scientific and sound administrative approach to these unnecessary catastrophes and conditions which favored their occurrence. Doctor Puckett, during his three years in office, had demonstrated that an effective program could be developed that would get results. Physicians were unhappy with the confusion of the preceding eight years.

Leaders rose to the occasion. When Mr. Ernest W. Marland was elected Governor, several key persons obtained an audience with him. They reminded him of the untenable situation as far as the public health program in the state was concerned and requested that, as representatives of the State Medical Association, they be allowed to submit the names of three or more physicians who seemed best qualified for the position of State Commissioner of Health, as a means of bringing order out of the confusion of the past several years.<sup>4</sup> The request was granted. Among the names submitted was that of Doctor Charles M. Pearce. Doctor Pearce had had four months training in public health administration through a short course they offered at Vanderbilt in Nashville. He had had experience in operating a local program—at that time he was full-time Director of the Pittsburg County Health Department.

Doctor Pearce was selected as Commissioner and served from 1935 to 1938. Doctor Pearce was anxious to build solidarity. He picked up where Doctor Puckett had left off. He was able to markedly increase the state appropriation and move ahead with some of the concepts in organization and delivery of service instituted by Doctor Puckett. When Social Security monies were made available in 1936, he was quick to take advantage of them to further develop the state health system, with emphasis on local services.

Doctor Pearce seemed to have broken faith with the profession near the end of his administration. At least, in the governor campaign in 1938, he aligned himself with one of the opponents of Leon C. Phillips.

Mr. Phillips won the governorship and, logically, wanted a Commissioner of Health, a member of his cabinet, friendly to him. Organized medicine, again mindful of the floundering of previous years, was ready and did move in the interest of good health service. Several leaders went to the Governor-Elect and asked to be allowed to submit names of physicians who seemed most qualified to be Commissioner of Health. Among them were the names of Doctor Marrow and Doctor Grady F. Mathews. Governor Phillips was friendly to Doctor Marrow, but Doctor Marrow knew Doctor Mathews and his qualifications and, with the support of the medical leaders, was instrumental in having him appointed. Doctor Mathews, like Doctor Pearce, had had public health training at Vanderbilt. He moved ahead with the organization—state and local. Where Doctor Puckett had set up departments or divisions, often with non-professional heads, Doctor Pearce had employed as heads of departments professional persons, though without training. Patronage was still a major factor in selecting workers for both state and local positions; a common expression was, "Who is your sponsor?"—meaning, of course, a political figure. Despite this, Doctor Mathews began recruiting trained people and offering training fellowships to workers on the job.

Doctor Mathews, as had his predecessors, had to deal with political pressures and patronage. These he handled well and was able to move the program ahead. This, the medical men of the state respected.

Robert S. Kerr succeeded Governor Phillips. Medical leaders, still mindful of happenings in the past, went to Governor Kerr, this time not only with a plea of competency, but for tenure as well. Doctor Mathews had given a good accounting of himself. "Let's break the custom of a new commissioner with every new governor. Public Health Administrator must be a career job, not a political one," was the plea made to Governor Kerr. At least, Doctor Mathews was not replaced. He was not reappointed but continued on an interim basis. Medical leaders were not pleased with this quandary.

I had come to Oklahoma late in 1938 under the auspices of the Commonwealth Fund, a foundation interested in strengthening pub-

lic health services, from the State of Mississippi where the State Health Department had operated well under a state board of health.

Doctor Mack Shanholtz had come to Seminole County as Health Director from Virginia where the State Health Department functioned under a board of health.

I had become friendly with Doctor Tom Lowry, at that time Dean of the School of Medicine. In our discussions, the matter of the instability of the health organization came up. Doctor Lowry had been in on the discussions with Governor Kerr regarding some continuity in the Health Commissioner's position. He was displeased about the uncertainties involved. I told him of my experience in Mississippi with a state board of health—something of its make-up and functions. Doctor Shanholtz was later brought into discussions, with him giving the Virginia experience.

Doctor Lowry was impressed. A board of health seemed to be an answer to the problem at hand. After considerable dialogue and Doctor Lowry's involvement of physicians like Jim Stevenson of Tulsa, L. J. Moorman of Oklahoma City, Jim Osborn of Frederick, Henry K. Speed of Sayre, Finis Ewing of Muskogee, Sam McKeel of Ada, and others, Paul Fessler, then Acting Executive Secretary of the State Medical Association, and I were given the task of working with the Association's attorney in drawing up a bill that would provide for a state board of health. To get our proposal before physicians and legislators over the state, a tour involving Doctor Charles R. Rountree, then President of the State Association, Doctor Lowry, whose interest was more support for the School of Medicine, Doctor Floyd Keller, in interest of a state medical examiner system, and me, advocating a state board of health, was conducted with Doctor Rountree as moderator.

The bill was presented to the legislature and, after the usual committee hearings, received serious consideration near the end of the session. For a time, it looked as if we had lost, but just a few days before adjournment, it was brought up again. It was said that on that day there were almost as many physicians at the hearings as legislators. The Board of Health Bill passed, Doctor

## Public Health / SHACKELFORD

Lowry received more money for the School of Medicine, but the Medical Examiner Bill had to wait several years.

Appointment of the following persons was made by Governor Kerr on June 15th, 1945, with terms to be effective July 1st, 1945. Original terms were to be staggered, with one term expiring each year.

<i>Congressional District</i>	<i>Board Member and Occupation</i>	<i>Town of Residence</i>
At Large	C. R. Rountree, MD	Oklahoma City
Seventh	V. C. Tisdal, MD	Elk City
Fifth	R. L. Loy, Hospital Administrator	Oklahoma City
First	A. G. Reed, DO	Tulsa
Second	Charles Ed White, MD	Muskogee
Eighth	Fred Seids, DDS	Perry
Third	T. H. McCarley, MD	McAlester
Sixth	William F. Schumacher, Engineer	Lawton
Fourth	Catherine Brydia, MD	Ada

The first meeting was held on June 22nd, 1945. Doctor Charles R. Rountree was elected Chairman; Doctor Charles Ed White, Vice-Chairman; and Mr. Bert Loy, Secretary, Doctor Grady F. Mathews was elected Commissioner by unanimous consent.

This was a beginning. First meetings, with members enamored with the honor given them, were easy.

Defining functions of a board versus a department, understanding these and maintaining interest, involvement, and attendance, often is a difficult task. The leadership and work of Doctor Rountree in accomplishing these were outstanding. He merits much credit for his efforts and perseverance, as does Mr. Bert Loy, who was often Doctor Rountree's advisor and a stabilizing influence on the Board. Doctor McCarley, a purist, had the attitude of, "If it's right, let's do it and let political implications take care of themselves." Other members over the years have made great contributions. Doctor Rountree served as Chairman until his retirement from the Board in 1963.

In the 27 years of its functioning, the Board has contributed greatly to the stability of the State Health System and has been a big factor in its progress.

Something of a crisis developed with the resignation of Doctor A. B. Colyar in December 1970 and a new administration taking over the reins of state government. Doctor Colyar recommended to the Board of Health as a replacement an associate with whom he had worked while in the U. S. Public Health Service. Doctor Colyar had substantially increased the central office staff,

and to this staff, were going limited funds available for the State Health Program.

This was of concern to workers in the counties, as well as those in the central office. The workers and many of the legislators were not pleased with this, nor did they like the idea of bringing in a successor who might have the same philosophy. These feelings were made clear to the Board of Health members. At their December 1970 meeting, they made an interim appointment to act while they looked for a suitable replacement for Doctor Colyar.

In the meantime, legislation to abolish or reconstitute the Board, thus again throwing the position into the political arena, aroused the concern of leaders in Oklahoma Medicine. Had the passage of such legislation become imminent, no doubt organized medicine would have strongly opposed the move.

Currently, there is a study group trying to develop a plan for consolidation of departments in the executive branch of state government. In that there are now more than 200 agencies reporting to the Governor, streamlining seems in order. A strong merit system is being recommended; this should preclude undue patronage. But with the vital role the Department of Public Health should play in meeting health problems in the changing order of our society, some safeguards in the appointment of the head of the department seem in order.

In any event, the role of the Public Health Department must change. The origin of official health agencies was on a basis of need for a continuing program to control communicable diseases. The issue of the day is no longer "prevention" as it was a decade ago, but the delivery of health care—prevention, early identification, early intervention, and rehabilitation—a system which will utilize, in an efficient manner, professionals and non-professionals. Will there be a team of organized medicine and the official public health agency, aligning themselves with planning agencies and others to develop and implement a plan to reach people in the rural areas and the inner city—some system that will insure quality care, curb rising costs, and keep medical matters in medical hands?

A health problem becomes a public health problem when organized social action is nec-

essary for its solution.<sup>5</sup> Certainly, the delivery of health care falls in this category. The State Health Department is the primary official health agency. A team of health caregivers and the health agency are in a vantage position to give leadership and technical counseling in developing and implementing a system in keeping with current needs.

#### ACKNOWLEDGMENT

Mrs. Lavena M. Ninman assisted in the

preparation of this manuscript. □

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DATE	TITLE	SPEAKER
January 31, 1973	CHANGING CONCEPTS IN MANAGEMENT OF CHRONIC RENAL FAILURE WITH DIALYSIS AND TRANSPLANTATION	B. J. Matter, MD and J. A. Pederson, MD
February 14, 1973	PULMONARY DISEASE I	Robert Rogers, MD
February 21, 1973	PULMONARY DISEASE II	Robert Rogers, MD
February 28, 1973	INFECTIOUS DISEASE I	Everett Rhoades, MD
March 7, 1973	INFECTIOUS DISEASE II	Everett Rhoades, MD Sylvia Bottomly, MD
March 14, 1973	METABOLIC DISORDERS PRESENTING IN THE ADULT	Richard Marshall, MD
March 21, 1973	TROPICAL DISEASES	Everett Rhoades, MD
March 28, 1973	VALVULAR HEART DISEASE	W. H. Oehlert, MD
April 4, 1973	ATHEROSCLEROTIC HEART DISEASE CARDIOMYOPATHIES	S. D. Shappell, MD
April 11, 1973	NEUROLOGY	C. G. Gunn, MD
April 18, 1973	CONGENITAL HEART DISEASE PRESENTING IN THE ADULT	S. D. Shappell, MD
April 25, 1973	"OPEN DATE"	
May 2, 1973	GENETICS	J. Rodman Seely, MD
May 9, 1973	IMMUNOLOGY	Robert Oleinick, MD
May 16, 1973	ALLERGY	James Wells, MD

This ancient doctrine of medical practice means simply, "first, do no harm." It is equally applicable to certain aspects of preventive medicine as to classical therapeutic medicine. It comes to mind now as we review the past year in our rabies control activities. Because of the endemic nature of rabies in Oklahoma, a considerable amount of rabies vaccine was given this year in pre- and post-exposure prophylaxis. In most instances the appropriate indications were observed for immunization. In several instances, however, vaccine was given to individuals who cannot be considered exposed to rabies—i.e. persons bitten by small rodents, birds, etc., and persons not bitten or exposed directly to saliva of rabid animals.

An estimated 424,000 persons have received duck embryo rabies vaccine during the 15 years this product has been available. Serious reactions have been few but have included 22 cases of acute allergic reactions,



## News From The Oklahoma State Department of Health

37 cases of transient neurologic symptoms, 4 cases of transverse myelitis, 5 cases of cranial or peripheral encephalopathy and 2 cases of fatal encephalitis.

Exposure situations should be weighed carefully and the decision to treat based on the factors of animal status, nature of exposure, regional epidemiology of the disease and others. Vaccine should *not* be given where it is not indicated, and should certainly not be withheld where a reasonable chance of human exposure exists. These are often complicated decisions to make. We can help. Call 405/ 271-4060. ☐

Reference: CDC Veterinary Public Health Notes, October 1972.

### COMMUNICABLE DISEASES IN OKLAHOMA FOR NOVEMBER, 1972

Disease	November 1972	November 1971	October 1972	Total to Date 1972	Total to Date 1971
Amebiasis	2	2	2	27	53
Brucellosis	1	1	1	8	5
Chickenpox	10	6	1	152	204
Encephalitis, infect.	3	4	4	18	41
Gonorrhea	681	710	732	9156	7556
Hepatitis, infect. & serum	95	49	62	759	760
Leptospirosis	—	—	1	2	1
Malaria	—	—	—	5	68
Meningococcal infections	1	3	2	9	8
Meningitis, aseptic	7	2	12	56	117
Mumps	3	5	2	156	198
Rabies in animals	11	3	16	278	270
Rheumatic fever	1	3	1	26	25
Rocky Mt. spotted fever	1	1	3	35	29
Rubella	2	1	2	41	70
Rubella, congenital syn.	—	—	—	—	—
Rubeola	1	1	—	10	794
Salmonellosis	11	13	24	143	182
Shigellosis	34	5	63	210	81
Syphilis	115	97	99	1094	1150
Tetanus	—	1	—	1	2
Tuberculosis, new active	25	21	22	336	303
Tularemia	—	—	1	11	17
Typhoid fever	—	—	—	4	3
Whooping cough	3	—	2	31	16

## Group Health Insurance Offered To Members and Employees

A new major medical insurance program for OSMA members and their employees was announced recently by association President Doctor Stanley R. McCampbell and Doctor C. Alton Brown, Chairman of the OSMA Council on Insurance. The new plan extends the association's insurance portfolio to six group or sponsored plans.

The health insurance package will be underwritten by the Washington National Insurance Company of Evanston, Illinois, and will be sold by the C. L. Frates Company and the Wilson and Wilson Insurance Agency, OSMA insurance counselors, both of Oklahoma City.

### BENEFITS DESCRIBED

Physicians may select from among a number of options in order to tailor their health insurance coverage to their individual needs. For example, deductibles ranging from \$250 to \$1,000 (in increments of \$250) are available . . . selection as to hospital room allowances start as low as \$30 a day up to as high as \$75 a day . . . surgical benefits options range from \$1,200 to as high as \$3,000 for a single procedure . . . and maximum lifetime benefits are from \$18,000 to \$45,000, depending on the plan selected.

Premium rates vary according to the benefits chosen. As an example, a 44-year-old doctor, his wife and one dependent child, may select a \$500 deductible, a \$50 daily room allowance, a maximum surgical fee of \$2,000, and maximum benefits for one illness of \$30,000. Their combined annual premium would be \$239.60. If a deductible of \$1,000 was selected, the premium for the above benefits would only be \$125.30.

A folder which briefly describes the program has been mailed to all OSMA members, Doctor Brown said, together with a short application form. Because of the many options available, all applicants will be personally contacted by an insurance agent upon receipt of the form.

### EMPLOYEE COVERAGE

Employees of physicians will be offered a version of the plan with a deductible of only \$100. A folder on this program is in preparation. Physicians who express an interest in employee coverage may indicate their desire for further information on the short application form.

### INSURABILITY

During the initial enrollment period, Blue Shield Coverage will be accepted as evidence of insurability for the new program. If the Blue Shield-covered physician is uninsurable, he will be subject to the following maximum benefits: \$40/day room allowance, \$24,000 maximum benefits, and a \$1,600 surgical schedule. Insurable doctors, of course, may select higher benefits.

If the OSMA enrolls 400 members during the enrollment period, all members of the association may purchase at least the benefits described above, regardless of insurability.

*In the brochure mailed to members, a statement was made which could be interpreted to restrict coverage under this contract. The plan will pay benefits regardless of whether a physician has other insurance or not, and this plan may be purchased in addition to any other health insurance carried.*

The program has been endorsed by the OSMA Board of Trustees. A master contract with Washington National is being negotiated to protect the physicians' interests and to assure stability in the program.

Washington National has been in business 65 years and has assets in excess of \$560,000,000. It is rated as "excellent" by Best's Insurance Report, an authoritative source.

Further information may be obtained by contacting the C. L. Frates Company, P.O. Box 12446, Oklahoma City 73112. Telephone 528-7755. ☐

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Further details of this meeting may be found on page 44 of this issue of  
*The Journal*

## Massive Peer Review Program Required By Congress

When President Nixon signed H.R.1, the Social Security Amendments Act, he set into motion a program which is expected to have far-reaching effects on the practice of medicine.

During the two years the measure was pending before Congress, one particular section was of great concern to physicians. Referred to as the "Bennett Amendment," the section called for the creation of peer review mechanisms to review all claims for professional services that are subject to payment under the Social Security Act, Medicare and Medicaid.

Congress concurred in Senator Bennett's proposal that Professional Standards Review Organizations, known as PSRO's, be formed to constantly monitor the quality and quantity of medical care being paid for with tax dollars. PSRO's would determine quality of services, medical necessity of services, the appropriateness of medical care facilities used, and the optimum length of hospital stay.

Each PSRO will apply professionally developed norms of care, diagnosis and treatment based upon typical patterns of practice in the region it covers. While the norms will be developed regionally, they will be compared against a national set of norms developed by HEW. Regional norms will be allowed if they are not "significantly different" from the national norms.

As is true of most federal legislation, the law gives the Secretary of Health Education and Welfare great regulatory authority over the establishment and ultimate operation of the various PSRO's.

The law specifies that not later than January 1st, 1974, the Secretary shall have established throughout the United States "appropriate areas" within which PSROs can be designated. It is anticipated that in many parts of the country entire states will be designated as "appropriate areas" and will, therefore, have only one statewide PSRO. Oklahoma *could* be such an area. The more populous states will probably be broken into several PSRO areas.

The National Professional Standards Review Council will advise the Secretary in the

administration of the program. It will also provide for the development and distribution of the necessary information and data to assist those organizations which wish to be PSRO's. After the program is well established it will review the operations of PSRO's and will arrange for the making of continuous studies and investigations with a view to developing and recommending methods to more effectively accomplish the purpose of the program.

The most important function of the National PSR Council will be the preparation and distribution of the regional norms of care to be utilized by the local PSRO's. Norms will actually be developed at the regional level, but must be approved by the National PSR Council before they can be used. The Council is directed by the law to constantly review and revise the norms.

Appointed by the Secretary of HEW, the National Council will consist of eleven physicians, not otherwise employed by the United States, each serving a term of three years with eligibility for reappointment. The law specifies that a majority of the members will be physicians that have been recommended to the Secretary by national organizations recognized as representing practicing physicians.

(One Oklahoma physician has already been nominated for a position on the National Council. Leo A. Myers, MD, of Shattuck, has been nominated by the American Association of Comprehensive Health Planning.)

In any state having three or more PSRO's, the law provides for the establishment of a Statewide PSR Council to coordinate their activities. The Council will be charged with the responsibility of disseminating information and data among the various PSRO's within the state, and will assist the Secretary of HEW in the development of uniformed data gathering procedures and operating procedures.

The Statewide PSR Council will consist of one representative designated by each PSRO in the state, two physicians designated by the state medical society, two physicians designated by the state hospital association, two persons knowledgeable in health care to be selected by the Secretary, and two persons who will have been recommended for mem-

bership on the Council by the Governor of the state. These last four persons may all be laymen.

There is another advisory group created by the law to serve either the Statewide PSR Council or a local PSRO. This advisory group will consist of "not less than seven nor more than eleven members" which will be made up of representatives of health care practitioners *other than physicians*. It will also have representatives of hospitals and other health care facilities which provide services.

HEW Secretary is given the authority to provide by regulation the manner in which the members of the advisory group will be selected.

As soon as possible after he has designated PSRO areas, the Secretary of HEW is to enter into an agreement with a "qualified organization" to serve as the area PSRO. HR-1 specifies that medical associations and societies are to be given the first opportunity to serve as PSRO's.

"Qualified organization" is defined to mean . . . an organization (i) which is a nonprofit professional association, or a component organization, (ii) which is composed of licensed doctors of medicine *or* osteopathy engaged in the practice of medicine or surgery in the area, (iii) the membership of which includes a substantial portion of all these physicians in the area, (iv) which is organized in a manner which will make available professional competence to review health care service . . . , (v) the membership of which is voluntary and open to all doctors of medicine *or* osteopathy licensed to engage in the practice of medicine or surgery in the area *without requirement of membership in our payment of dues to any organized medical society or association*, and (vi) which does not restrict the eligibility of any member for service as an officer of the PSRO or eligibility for an assignment to duties of the PSRO.

For any organization to qualify, it must submit to the Secretary a formal plan of how it intends to operate as well as other relevant data and information as he shall require.

Provision is made in the law for a non medical society organization to serve as a

PSRO. In the event that no medical society organization chooses to submit a proper plan, the Secretary may designate some other organization to serve as PSRO.

After designating the PSRO for a given area, the Secretary is directed by the law to inform the doctors of medicine or osteopathy who are in active practice in the area of his intention to enter into an agreement with the organization.

HR-1 was amended to provide that PSRO's will be required to review only services rendered by or in institutions. However, the organization can request the Secretary to assign additional duties and functions as it becomes more adept.

The PSRO itself is not a single committee charged with the responsibility of reviewing professional services . . . it may be a series of committees and individuals that make initial determinations. These determinations will be subject to review at progressively higher and higher levels within the PSRO.

Final determinations by the PSRO are reviewable by the Statewide PSR Council, if there is one, or by the Secretary of HEW. Such reviews outside of the PSRO are subject to certain qualifications listed in the law, and to qualifying regulations to be promulgated by the Secretary.

Each hospital admission will be subject to review for medical necessity, quality of care, length of stay, and appropriateness of medical care, at some point during the patient's stay. The law recommends that the review be made not later than the 50th percentile of length-of-stay for patients in similar age groups with similar diagnosis. In other words, the PSRO will assume the functions that have been carried out in the past by the hospital's utilization review committee.

To more adequately accomplish the in-hospital review, each PSRO is authorized by the law to accept the findings of the review committee of the hospital or other operating health care facility furnishing the services. The law provides that the PSRO may honor these committees only so long as they demonstrate their capacity to effectively carry out their function in a timely manner.

Elective hospital admissions may be subject to advance certification by a PSRO (an optional responsibility a PSRO may as-

sume). The physician seeking an elective admission for a Medicare or Medicaid patient must provide the PSRO with information to show that the admission is medically necessary, that the appropriate facility is being used, and the quality of services will meet the professionally recognized standards. The admission will then be certified by the PSRO to the appropriate agency in advance of the patient's admission to the medical care facility.

A close reading of the PSRO law indicates that individual physicians will be assigned to make determinations on the elective admission of patients. In order to be a reviewer, the physician must have active hospital staff privileges in at least one of the participating hospitals in the PSRO area and can in no way be involved in the services rendered to the patient.

In proprietary health situations, the reviewer making the elective admissions decisions can have no financial interest in the institution, organization, or agency. This same qualification also applies to members of his family . . . interpreted to mean his spouse, children, including legally adopted children, grandchildren, parents, and grandparents.

All final determinations made by a PSRO must be made by a duly licensed doctor of medicine or osteopathy. Non-professionals will not be allowed to make such determinations.

Specialists will be utilized by the PSRO to the extent necessary or appropriate for the proper performance of its duty. Regulations to be prescribed by the Secretary will allow the review organization to make arrangements to utilize the services of such persons, to undertake professional inquiry either before or after, or both before and after, the provision of such services, to examine the pertinent records of any practitioner or provider of health care providing the services, and to inspect the physical facilities in which care is rendered or services provided of any practitioner or provider.

The implication of the section of law dealing with the use of specialists seems to be that a PSRO could use the services of non-physicians . . . such as dentists or podiatrists . . . to review the professional services of other non-physician practitioners. It will be

necessary to review the regulations from HEW to see the extent to which this will be carried.

Due to the manner in which federal legislation is normally written, it is not possible to determine the full impact of PSRO's on the practice of medicine. The United States Congress tends to write laws which are very broad and general in nature, leaving the actual mechanics of implementation up to regulations.

Due to the various time deadlines for PSRO's that are listed in HR-1, it is fairly obvious that the Secretary of HEW must publish his PSRO regulations sometime during the first half of 1973. This would give the various organizations time to draw up appropriate plans for presentation so that they could be in operation on or about January 1st, 1974.

For the first two years PSRO's will be conditional and will slowly incorporate into their procedures all of the functions the law requires of them. By January 1st, 1976, all PSRO's are to be fully operational. After that date, the law appears to say that in any area where there is no PSRO, the Secretary can enter into an agreement with any organization, whether it is a non-profit professional association or not, to provide PSRO services. □

## **Oklahoma Physician Nominated To PSRO Council**

A family practitioner from Shattuck, Oklahoma, has been nominated to serve on the National Professional Standards Review Council. The nomination of Leo A. Myers, MD, was made by the American Association for Comprehensive Health Planning.

Doctor Myers' nomination came only shortly after he was elected as a new member of the AACHP Board of Directors. His election to that position came during its annual meeting in San Diego, California.

Doctor Myers was attending the San Diego meeting as a representative of the Oklahoma State Health Planning Council, a position he was appointed to by Lucien Pascucci, MD, past-president of the OSMA.

The doctor is a member of the staff of the Newman Clinic and Hospital, Shattuck, and is a chartered diplomat of the American Board of Family Practice. □

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## AMA House of Delegates Actions

Delegates to the American Medical Association met in Cincinnati, Ohio, November 26th-29th during the association's 26th Clinical Convention. The House of Delegates, meeting for a total of eight hours and 55 minutes, acted on 59 reports and 65 resolutions.

Total meeting time of the House does not include reference committee meetings. The following summary covers many of the subjects considered at the Clinical Convention, but is not meant to be a complete report of all actions taken.

The AMA will "provide a dominant role of leadership in the implementation of the PSRO program to assure that the best interests of the public and the profession are preserved," the House of Delegates decreed. This will be done by creating an advisory committee on professional standards review to help provide input from the medical profession in the development of PSRO regulations, and to help constitute societies set up PSRO's, among other things.

Recent budget cutting actions taken by the AMA Board of Trustees were approved by the House. The 1973 budget summary anticipates a gross revenue of just over \$37,000,000 and operating expenses of \$36,322,000, leaving a projected surplus of about \$800,000.

Financial restraint action taken by the board included the termination of four councils and six committees. Another economy action made specialty journals available on subscription only, starting January 9th. This will withdraw free distribution of the AMA specialty journals as a part of benefits of membership.

Prism, the AMA's new socioeconomic publication, will be distributed free as a membership benefit during the coming year. JAMA will continue to be distributed free to all members.

A statement on the concept of health outreach, the use of lay workers to serve as a bridge between patients and professionals, was approved by the House. Among several sound reasons for using such workers to assist in affective delivery of health care, the report says, is that they free doctors and other health professionals to better utilize their time and thus extend the scope of their

services. The statement recommends that the AMA, state and local medical societies encourage the use of such personnel, and that the AMA institute educational activities for physicians and other health professionals on the use of outreach workers.

In regard to the collection and distribution of blood, the AMA recommends that the operating standards of the American Association of Blood Banks and the American Red Cross be recognized and accepted by the new federal panel on Blood Banking. Their request was also made that any national panel set up to advise on procurement or use of blood include physician representation and that programs to increase voluntary blood donation be encouraged.

The House reaffirmed the AMA policy regarding the Physician's Assistant and stated that such a person functions most safely and effectively as an extension of, not as a substitute for, the physician.

A resolution, introduced by Oklahoma, was adopted by the House instructing the Board of Trustees to again attempt to have the Social Security Administration change the wording on the Medicare Explanation of Benefits Form so that the phrase "more than allowable charge" will not imply that the physician is overcharging.

A resolution was adopted expressing the AMA's opposition to the concept of "Health Maintenance Organizations as the exclusive or major means of providing health care delivery."

Venereal disease, as a critical national problem, was recognized by the House of Delegates. It urged all physicians to take "all appropriate measures to reverse the rise in venereal disease and bring it under control with particular emphasis on the importance of prompt reporting and the provision of assistance to public health departments. . . ."

Recognizing that the floridation of public water supplies is an effective method for reducing the incidence of dental problems in children, the House adopted a resolution endorsing floridation and making the policy a part of the AMA's Health Education Program. A request to establish a section on emergency medicine was referred by the delegates to the AMA Board of Trustees. The House was informed that the American

College of Emergency Physicians had petitioned the Board for section status in 1971. Since the Board had not yet submitted a recommendation, the House urged the Board to submit an affirmative report at the 1973 annual meeting in New York City.

Two special awards were made by the House. George Hoyt Wipple, MD, winner of the 1934 Nobel Prize for medicine was selected to receive the AMA's Distinguished Service Award. Doctor Wipple, now 94, is the founder of the University of Rochester School of Medicine and Dentistry. The second special award went to Leslie Townes (Bob) Hope. The famed entertainer will receive the Layman's Citation for Distinguished Service in honor of his contribution to the Eisenhower Medical Center in Palm Springs, California. Hope donated the 80 acre site for the center and helped raise nearly \$5,000,000.

In a special action, the House expressed its appreciation to Elliott L. Richardson, outgoing Secretary of Health, Education and

Welfare, for his cooperation and assistance to the AMA. It further pledged full support and assistance to Casper W. Weinberger, new HEW Secretary. □

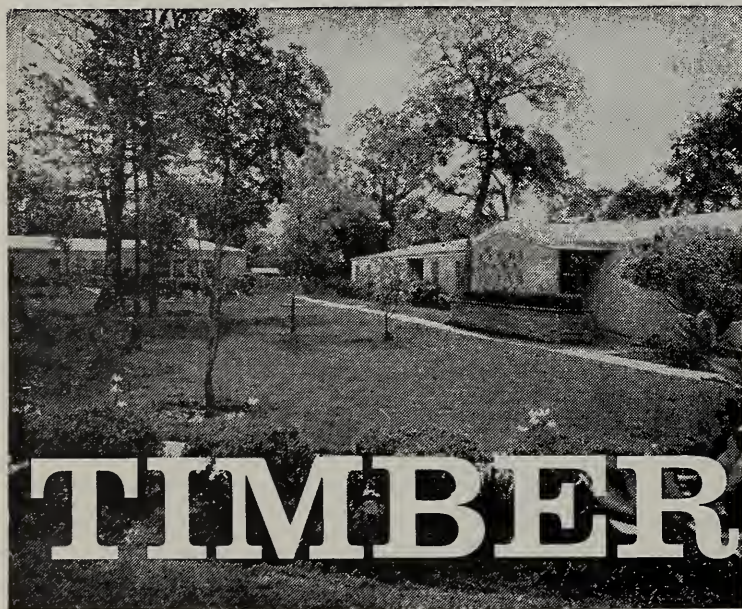
## Donahue Nominated To APA Post

Oklahoma's Hayden H. Donahue, MD, is one of two psychiatrists nominated to run for the American Psychiatric Association's President-Elect.

Donahue's name along with that of John P. Spiegel, MD, of Boston, Massachusetts, will appear on the ballot when the APA conducts its election in late February or early March.

Under APA's constitution, candidates must be fellows of the association. In addition, Doctor Donahue has served as the association's treasurer and in numerous other positions.

Well known to all Oklahoma physicians, Doctor Donahue is best known as the Director of Oklahoma's Department of Mental Health and the Superintendent of Central State Hospital, Norman, Oklahoma. □



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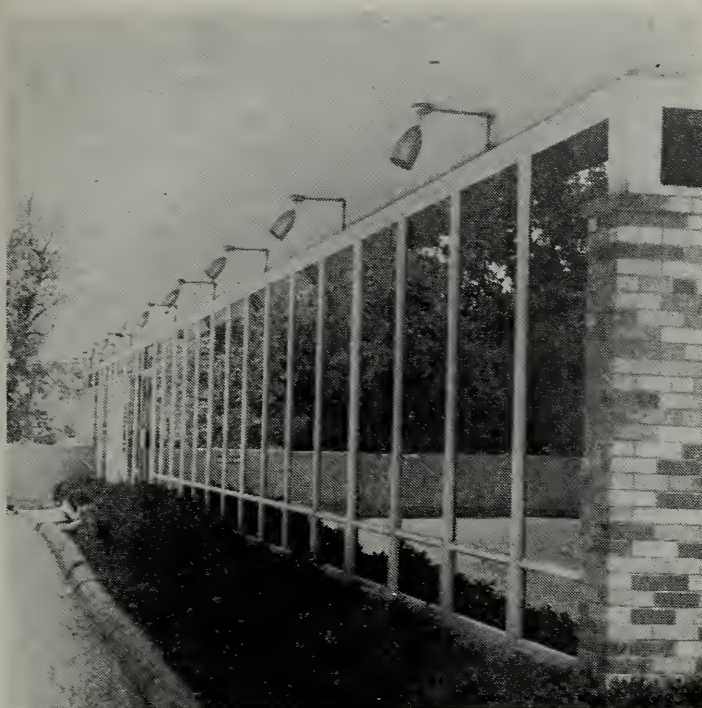
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## Professional Liability Insurance Still A Bargain

Even with a premium increase, the OSMA sponsored professional liability insurance coverage for its members is still the best buy.

Underwritten by the Pacific Employers Group, wholly owned Division of the Insurance Company of North America, the professional liability program is still 43 to 47 percent under the national bureau rates for similar coverage in Oklahoma. This year's premium increase is only the second such since the program began in 1967.

In that year the OSMA entered into a contractual agreement with The Insurance Company of North America whereby the company would justify any premium increase to the association's Council on Insurance. Such justification was presented to the Council in mid-1972. The company was actually entitled to a premium increase in 1971 but, at the request of the association, did not ask for it.

Professional liability insurance premiums are based on the amount of claims actually paid out, the amount of money set up in reserve to cover known claims in the future, and an additional amount to cover a predictable number of unknown claims. These latter are claims that will be filed against the program in the future.

The following chart shows the savings Oklahoma physicians are enjoying over what their premium would be under a bureau company.

Class	OSMA Rate	Oklahoma Bureau Rate	Percent of Savings
1	\$169	\$296	43%
2	\$297	\$517	43%
3	\$590	\$1,123	47%
4	\$786	\$1,497	47%
5	\$983	\$1,871	47%

Oklahoma physicians pay a lower premium for their professional liability coverage than do their colleagues in the five surrounding states of Colorado, Kansas, Missouri, Arkansas and Texas.

There is almost no comparison between the Oklahoma rates and those being paid by physicians in California. While a Class 5

physician in Oklahoma pays \$983 a year for his coverage, a Class 1 physician in California pays \$915. The California Class 5 physician is paying out an astronomical \$5,783 per year for his professional liability coverage of \$100/\$300,000.

Copies of the OSMA booklet "Professional Liability Medical-Legal Guide for Physicians" are available from the association's office in Oklahoma City. This booklet was prepared by the OSMA staff and printed by Pacific Employers Group for distribution to all Oklahoma physicians. It contains information on the reporting of claims, *the avoiding of claims*, important doctrines of law, and a series of medical-legal forms that can be used in a physician's office. □

## Program Announced For OSMA 1973 Meeting

A tentative program for the OSMA's 1973 Annual Meeting has been announced by meeting chairman Stephen J. Adelson, MD.

Scheduled for Tulsa's Fairmont-Mayo Hotel and the Tulsa Assembly Center, the meeting will be held April 26th through 28th.

In addition to the usual scientific meetings sponsored by the OSMA, this year the American College of Obstetricians and Gynecologists will hold its District 7 Regional Seminar at the same time. Physicians and nurses interested in OB-GYN from a ten state area will be invited to the program.

The program scheduled for Friday, April 27th, will be a full day seminar on Gastroenterology. Two nationally recognized speakers have been invited to participate in the seminar.

The Saturday morning scientific program is entitled "Medical-Round Table Discussions." Experts in several different specialties will be available to discuss any problem or answer any questions that a physician might have.

Saturday afternoon will be devoted to the socioeconomics of medicine. At 1 p.m. AMA President Carl A. Hoffman, MD, will appear before a meeting open to all OSMA members.

A "Medical Office Economic Seminar" will fill out the Saturday afternoon program.

Additional announcements about the association's 67th annual meeting will be made as plans are completed. □

## DEATH

WALTER J. BAZE, MD  
1883-1972

Retired, Chickasha physician, Walter J. Baze, MD, died in mid-November. Born January 15th, 1883, in San Saba, Texas, Doctor Baze was graduated from Baylor University College of Medicine in 1912. He retired last year following over 50 years of active practice. Doctor Baze had been honored by the OSMA with the presentation of an Honorary-Life Membership in 1958. □

## Gonorrhea Increasing At Alarming Rate

Rapid growth of the gonorrhea problem in Oklahoma is alarming state health department officials. By the end of October, 1972, there had been nearly 2,000 more reported cases than in the previous time period for 1971.

On November 1st, 1972, the health department showed 8,474 cases of reported gonorrhea in Oklahoma. Since this disease is critically under reported by private physicians, the actual total of cases is probably many times the reported figure.

In the Oklahoma Communicable Disease Bulletin the Health Department said, "Of greatest concern is not the simple magnitude of the problem, but the rate at which it is growing."

The department recognized that "many pressures often dictate against the official reporting of a specific case by the physician." However they went on to state that the current gonorrhea problem is greatly complicated by inadequate reporting since appropriate health authorities cannot followup on possible transmission of the disease.

The bulletin said, "Few physicians claim to be able to complete epidemiologic investigations on gonorrhea cases they see. Those who do, are not being honest with themselves, the patient, or the community. Gonorrhea is a disease transmitted by sexual contact (usually intercourse). Every infected person acquired his or her disease from another infected person. Our experience has shown that about half of your patients have exposed a third party before presenting it to your office."

Persons doing epidemiologic followups on reported gonorrhea cases are carefully trained by the department to locate and talk with cases and contacts in a "completely professional manner—in complete confidence." □

## "Doctor of the Day" Program Eight Years Old

OSMA's "Doctor of the Day" Program started its eighth year when the Oklahoma Legislature convened January 2nd at the State Capitol Building.

During each legislative session the medical association equips and stocks a first-aid station on the fourth floor of the state capitol building to serve all members of the House of Representatives and the Senate. A volunteer physician and nurse operate the station each day.

C. Riley Strong, MD, OSMA President-Elect, was one of the prime movers behind the program when it started eight years ago. At that time it was a joint project of the OSMA and the Oklahoma Chapter of the American Academy of General Practice, now the Academy of Family Physicians. Last year, in urging all physicians to volunteer, he said, "This is one of the most important public relations and legislative liaison activities of the medical association. We have received numerous compliments from elected officials. Its importance to our legislative effort cannot be understated."

Oklahoma's "Doctor of the Day" program is one of the best known in the nation, and has been copied by a number of different states.

Each volunteer physician is introduced at the opening session of both the House and Senate. One unique aspect of the program is that the physician is allowed on the floor of the House or Senate while it is in session. This is a privilege afforded to very few persons.

Physicians interested in serving one day as the doctor for the entire legislature are asked to contact David Bickham, Associate Executive Director of the OSMA. Volunteers are needed for any day, Monday through Thursday, of each week until the end of April.

Supplies and equipment for the first-aid

station are donated by various surgical supply houses and pharmaceutical manufacturing companies. The "Nurse of the Day" is also a volunteer and is sponsored by the Oklahoma State Nurses Association. □

## **RMP Elects Board And Selects Director**

Oklahoma's Regional Medical Program has a new director, Albert M. Donnell, a new board of directors, and a new chairman-elect of the board, Tony Puckett, MD.

The Regional Advisory Group of the Oklahoma Regional Medical Program had been looking for a new director since the resignation of Dale Groom, MD, late last year. After interviewing many candidates, the Advisory Group nominated Mr. Donnell for the position. His nomination was confirmed by Leonard P. Eliel, MD, Executive Vice-President of the University of Oklahoma Health Sciences Center. Donnell assumed his new position on January 15th.

The Advisory Group also elected 20 Oklahomans to its board to serve three-year terms beginning January 1st this year. Five of the 20 are medical doctors: Ed L. Calhoon, MD, Beaver; Howard Keith, MD, Shattuck; Charles Atkins, MD, Oklahoma City; William R. Smith, MD, Enid; and Tony Puckett, MD, Oklahoma City.

Puckett was voted chairman-elect of the Regional Advisory Group. He will serve one year in that position and then will assume the Chairmanship during the year 1974.

C. Riley Strong, MD, El Reno, is the outgoing Chairman for 1972. Doctor Strong is President-Elect of the Oklahoma State Medical Association, and will assume the Presidency at the association's annual meeting in late April.

Doctor Puckett has already served three years as a member of the Advisory Group. He and Doctor Calhoon and Doctor Keith were elected to a second three-year term.

Donnell is a 1948 graduate of the University of Oklahoma in business administration. In 1955, he earned a master's degree in hospital administration from the graduate school of hospital administration at Northwestern University, Chicago.

He has served as Administrator of the

McAlester General Hospital for the past several years and as Executive Director of the McAlester Regional Health Center Authority since 1969.

The new Director is a member of the American Hospital Association, Oklahoma Hospital Association, American College of Hospital Administrators, Oklahoma Blue Cross-Blue Shield Board of Trustees, Advisory Board for Hospital Licensure, and Chairman of the Home Health Care Advisory Council of the Oklahoma State Department of Health. Donnell also served three years as a member of the Oklahoma Regional Medical Program's Regional Advisory Group. □

## **Five P.A.s Certified By Medical Examiners Board**

Oklahoma's first five Physician's Assistants have been certified by the State Board of Medical Examiners to engage in their chosen occupation.

Last year the Oklahoma legislature passed Senate Bill 506 recognizing a certification program for Physician's Assistants. In the bill a P.A. was described as "A skilled person, qualified by academic and clinical training, who provides patient services and other assistance within the established scope of a physician's practice and under the supervision and responsibility of said physician." It then went on to say that a P.A. requires an understanding of the diagnosis and treatment of disease, but does not necessarily have professional or advanced training in medical science.

The State Board of Medical Examiners was granted the power and the authority to create rules and regulations governing the requirements for certification of Physician's Assistants. They were also directed to establish standards of training, approve institutions for training, approve applications for training, and regulate the standards of practice of P.A.s after certification.

In response to the law the Oklahoma Board of Medical Examiners enacted a set of regulations under which the first five P.A.s were certified.

Of the five, two intend to remain at the Oklahoma University Health Sciences Center to assist in the training of more P.A.s.

The other three sought private employment and will be working in Muskogee, Drumright, and Waukita respectively.

In order for a P.A. to be certified an application must be filed by both the P.A. and the employing physician. It must set out the physician's professional background, scope of practice, a description of his practice, and a description of the way in which he intends to utilize the P.A.'s services.

Another regulation provides that the Board will not approve an application for any one physician to supervise more than two Physician's Assistants at any one time. A P.A. is certified to work for one physician, and his certification is not transferable to another employer without approval of the Board of Medical Examiners.

Another of the Board's regulations requires that the Physician's Assistant must "clearly identify himself as an assistant to a physician by the display of an appropriate designation, *i.e.*, badge, nameplate, with 'Physician's Assistant' appearing thereon." It also states that independent health care by a Physician's Assistant will not be permitted and that the assistant must be prepared to demonstrate to the Board satisfactory ability to perform those tasks assigned to him by his employer-physician.

Of the first five Oklahoma P.A.s, the three that sought private employment were all members of the first graduating class of the Oklahoma Health Science Center's Physician Associate Program. Earl E. Dunkleberger of Oklahoma City will go into practice with Donald L. Graves, MD, at the Waukita Community Health Center. Cara Jean Moore will serve as an assistant to Port Johnson, MD, of the Muskogee Orthopedic Clinic. Peter Simon Rourke will practice with John D. Hesson, MD, of Drumright.

Two of the first five were prime movers in Oklahoma's P.A. Program. William D. Stanhope will continue to serve as Associate Director of the University of Oklahoma Health Sciences Center's Physician's Associate Program. Thomas R. Godkins is an Associate Assistant Director of the Program. ☐

## Miscellaneous Advertisements

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# The Tuskegee Study

EDITORIAL NOTE: In recent years increased attention has been devoted to the ethics of medical experimentation involving humans. This emphasis is laudable, but situations in this highly sensitive area of science are not infrequently expanded improperly, taken out of context or distorted in interpretation. One of the most celebrated instances of recent times is that of the so-called Tuskegee Syphilis Study. Serious implications regarding the withholding of treatment have been made in the printed news media; many of these accounts have given only one side of the issue. Because of this and the importance of the topic, permission was requested and obtained to reproduce the excellent, comprehensive editorial by R. H. Kampmeier, MD, of Vanderbilt University School of Medicine, which appeared in *Southern Medical Journal* 65:1247-1251, 1972.

This article provides a complete historical resume of the Tuskegee Study giving equal treatment of all aspects of the matter. Dr. Kampmeier, author of the classic text *Essentials of Syphilology* is one of the few persons well qualified to discuss this important issue. His editorial is recommended to our readers. HDR, JR.

THE NEWS MEDIA recently raised a great hue and cry following revelation of the study of a group of untreated syphilitics which was begun now 40 years ago and came to be known as the Tuskegee Study. Accounts and editorials in the printed news media stated outright or implied that treatment was purposefully withheld to evaluate the course of untreated disease. Only two will be quoted. *Time*<sup>1</sup> stated, "... people with syphilis were *induced* to go without treatment. . . . for the past 25 years, the service has had a proven remedy available and *neglected* to use it on its select test cases. . . ." Even the *AMA News*<sup>2</sup> was trapped into writing, "None of the men in the study received treatment for syphilis, even after the *effectiveness* of penicillin became known." (The italics are the Editor's.)

In complete disregard of their abysmal ignorance, members of the fourth estate bang out anything on their typewriters which will make headlines. Small wonder William Osler wrote more than half a century ago,

"Believe nothing that you see in the newspapers—they have done more to create dissatisfaction than all other agencies. If you see anything in them that you know is true, begin to doubt it at once."

An exposition of the quarter-truth publicized will not reach the eyes of newsmen. It is just as well for it would be over their

heads; furthermore they live to write today and to forget tomorrow, irresponsible in the "dissatisfaction" they create. Only a handful of us are left, who had much experience in the management of syphilis at about the time of the inception of the Tuskegee Study and who thus might put this recent "tempest in a teapot" into proper historical perspective. Therefore, I have elected to review the setting of the study in 1932 and its continuation as a text for the education of the younger generation of physicians, the majority of whom have little knowledge of the venereal diseases.<sup>3</sup> I have reviewed the papers upon the Tuskegee Study published over three decades to refresh my memory of their content. Certain facts need emphasis as background to understand the initiation of the Study and its continuance.

The only acceptable study of the natural course of untreated syphilis in medical history was begun by Professor Boeck, of Oslo, who withheld treatment from 1,978 patients between 1891 and 1910, since the inadequacy of mercury and even its hazard in the management of acute syphilis was obvious to all experienced observers of that day. Of course, these patients could only be diagnosed *clinically* because the infectious agent was not to be identified until 1905 and the Wassermann test to be described until 1906. Boeck's pupil and successor, Bruusgaard,<sup>4</sup> in 1929, reported a follow-up study of 473 of these patients, 309 living and 164 dead with necropsy in 40. In summary, he reported that: 9.5% of the patients had developed neurosyphilis, 12.8% cardiovascular syphilis, 12.2% late benign syphilis, 23.6% had had clinical relapse, and 22.6% had died of other causes. This then was the state of knowledge regarding the prognosis of untreated syphilis at the time the Tuskegee Study was begun in 1932. (Two elegant reviews of Boeck's material appeared a quarter of a century later, in 1955, by Gjestland and by Clark and Danbolt.)

In 1910, Paul Ehrlich announced arsphenamine. His dream of a single sterilizing dose

was quickly shattered by the appearance of infectious relapse and neurorelapse. Several years later some of the complexities and hazards attending the use of arsphenamine were ameliorated to a degree by the development of neoarsphenamine which could be given by syringe. Nevertheless, the use of arsenotherapy was erratic, and generally without rhyme or reason—an injection now and then, possibly for a symptom, some skin lesion, or when the patient had a ten dollar bill. The initial cost of the arsphenamines was fantastic.\* Few doctors in the “teens” had need to become adept in venipuncture and intravenous treatment, other than in university clinics or public health clinics. The painful and often serious reactions to the arsphenamines, and later the painful effects of inept intramuscular injections of bismuth led to very irregular treatment and a high rate of clinical relapse in early syphilis.

Macon County, Alabama, the location of the Tuskegee Study, was a poor rural county. In the initial paper it was stated that “adequate treatment has not been freely available to most indigent citizens for a period longer than a decade,” and “In connection with the administration of adequate treatment, the tendency of all patients, whether white or colored, is to become dilatory in returning to the attending physician during the observation period.”\*\*

As a sidelight, an experience is worth relating. In 1945, a colleague and I spent some days with a VD mobile unit in the State of Mississippi, visiting plantations and crossroads communities in the delta region of the State. I learned of the method of financing medical care among sharecroppers. Following a positive serologic test found upon the mobile unit's visit to a plantation, its owner might write on a scrap of paper to be taken to the doctor. “Give one treatment to . . .” The injection could then be given, be charged to the planter, who in turn charged it against the sharecropper's account. I examined

\*When the German cargo submarine Deutschland popped up in Chesapeake Bay in 1916, much of its 1.5 million dollar payload was in arsphenamines. After our entry into the war, 1917, patent rights were forfeited and manufacturing was begun in the United States.

\*\*Under the most sophisticated and intensive follow-up even in an urban community having a stable population, the completion of 60 weeks of treatment for infectious syphilis was discouraging in the days of chemotherapy. The Medical L Clinic of Vanderbilt University Hospital, with Miss Anne Sweeney as director of social service, had an unmatched record of efficiency. But even here only 56% of Negro patients and 76% of white patients completed an acceptable course of treatment for early syphilis.

examples of such slips both in planters' and in doctors' offices. This was 13 years after the initiation of the Tuskegee Study!

The finding that continuous treatment of *early syphilis* (4 or more courses of an arsenical with interim mercury—at least 21 injections of an arsphenamine) reduced clinical or serorelapse to 21%, as against 89.2% in patients receiving 1 to 8 injections of arsenic, was described by Moore and Keidel,<sup>6</sup> in 1926 (just 6 years before the Tuskegee Study). These findings were verified and established by the Cooperative Clinical Studies\*\*\* of 1932, the year of the inception of the Study.

In June of 1943, a preliminary report suggested the curative effect of penicillin in acute syphilis. Promptly under the auspices of the war-time Office of Scientific Research and Development, a cooperative program was organized to include certain Army, Navy and USPHS installations and selected civilian clinics for the study of the effectiveness of penicillin in the treatment of *acute syphilis*. Though this laid the foundation for today's treatment, a number of years were to pass during which several forms of penicillin and the results of their use could be evaluated and before treatment schedules could be recommended for general use. An authoritative report finally was made in 1948 by NIH to the AMA Council on Pharmacy and Chemistry (16 years after the inception of the Tuskegee Study). Early, because of limited supplies of penicillin, all of us involved in this study were not permitted to experiment in the treatment of late syphilis. However, by 1945, such permission was granted to the leaders in this study—Doctors Wile, Moore and Stokes. Gradually, the efficacy of penicillin was established for some forms of late syphilis. The immediate results of penicillin treatment of late benign syphilis could be identified quickly. A collaborative study of the results of the treatment of paresis with penicillin and an obviously necessary 5 year follow-up was ready for publication in 1958 (a quarter of a century after the beginning of the Tuske-

\*\*\*Because of the heterogeneity of programs of antisyphilitic treatment in the 15 to 20 years after the introduction of arsenotherapy, and a decade's replacement of mercury by bismuth, medicine's first cooperative study came into being. It was to consist of a series of publications over a half dozen years following the first in 1932. These studies consisted of pooled clinical and therapeutic data from some 5 university hospital clinics and the USPHS.

gee Study). Reference to cardiovascular syphilis is postponed at this point.

Hence the historical background for the Tuskegee Study begun in 1932 may be summarized as follows: (a) One study of the unmodified natural history of syphilis was extant, based on clinical diagnosis. (b) Within a half dozen years *Treponema pallidum* was identified, a not highly sensitive serologic test was developed, and a treponemicidal drug was produced. (c) After almost a decade of dependence upon a costly foreign supply of arsenicals, neoarsphenamine became available for general use by doctors unskilled in intravenous therapy and without guidelines as to what constituted adequate treatment, hence with frequent untoward effects and with results *commonly worse than no treatment* in terms of relapse resulting from interference with the development of natural immunity. (d) Only in the year of the initiation of the Study did it become apparent as to what might constitute adequate treatment of *early* syphilis, with no inkling of the effect of arsenotherapy in later years of the disease. (e) And, finally, at that time it would have been a rare circumstance that an indigent person in a rural southern county would receive adequate weekly metal therapy for 60 and more weeks.

*A Review of the Tuskegee Study.* This was conceived in 1932 following a serologic survey of 1,782 male Negroes over age 25 in Macon County in 1931-33. Among these were 472 with at least 2 positive tests and 275 who had had treatment during the first 2 years of the disease. In 1933, the initial examinations were recorded of 399 untreated Negro syphilitic men, 201 presumed non-syphilitic men, and the 275 syphilitic men who had had variable amounts of antisymphilitic treatment.<sup>5</sup> "The patients who had syphilis were all in the latent stage; any acute cases requiring treatment were carefully screened out for standard therapy."<sup>7</sup> The subjects thus had latent syphilis and were grouped as having become infected 3 years, 6 years, and 9 years previously—a highly significant fact (i.e., syphilis of 19, 22, and 25 years' duration before the penicillin, which the news media<sup>1,2</sup> think should have been used, became generally available). It is clear that the subjects were not deterred from obtaining treatment if

they desired it or bothered to get what was available, the news media to the contrary. The report of the study at the 12 year point states that during these years a "considerable proportion of the syphilitics had received small amounts of treatment (usually 1 or 2 injections) although 12 had received as many as 10 injections." (These now needed to be excluded from the study.<sup>8</sup>) The fifth paper in 1954 comments that most of the study group remained untreated although "after careful questioning, it was found that 34 of 133 patients with syphilis had received injections or oral medication which might possibly have been penicillin; 11 of the 34 received more than 5 injections."<sup>9</sup> It was commented that general medical care had not improved in 20 years, and although there are excellent medical facilities in the county, costs are prohibitive or patients are unaware of them.

One paper is of especial interest because of the implications by news media of dishonesty and bribery in carrying out the study.<sup>7</sup> One of its authors is the black public health nurse who provided the continuity over years of study as examining physicians came and went. Stories of the rural roads so poor that in rainy seasons the subjects spent hours getting the nurse's car out of the mud, the reunion annually of the subjects as they met on the bus which picked them up at the crossroads, and the socializing, point up her rapport and empathy proven by the fact that she obtained 145 autopsies in 20 years and was refused only one. (The burial assistance mentioned by newspapers was through private philanthropy, the Milbank Memorial Fund.)

In preparation of this editorial I have reviewed all the papers of the study. I have alluded to those which are significant in view of the publicity given by the news media. The remaining papers detailing clinical studies and morbidity,<sup>10-12</sup> life expectancy,<sup>13</sup> and pathologic findings<sup>14</sup> are not basic to this editorial review. The final paper, in 1964, the 30th year of observation, summarized much of what had appeared in the papers which had appeared periodically.<sup>15</sup> Thus, the mortality during the first 12 years was 25% for the syphilitics and 14% for controls of about the same age. By the 20th year follow-up, 40% of the syphilitics and 27% of the controls had died. By the time of the 30th year evaluation, 59% of the syphilitics were dead, 21% alive and 20% lost to follow-up; for the control group, 45% were dead, 34% were living and 20% could

not be traced. By now 96% of those examined had had treatment, as many as 33% having had "curative" therapy. Among the 90 living syphilitics 12% were said to have evidence of late syphilis—two-thirds of these of cardiovascular nature and known in most instances since 1948. (The results of pathologic studies were described better in 1955.<sup>14</sup>) Sixty-six percent continued to have a positive VDRL test, 91% an active TPI test and 97% were reactive to the FTA-ABS test.

This editorial was undertaken and completed after many hours of "library research" to clarify details surrounding the Tuskegee Study. The primary purpose is to expose the deleterious ramifications of an irresponsible press in its criticisms of the ethics and actions of the medical profession in its constant age-long efforts to improve the health of the human race. Secondly, it has the purpose of emphasizing Osler's aphorism concerning the press and to put the profession always on guard in this respect and to urge disbelief of the press until proven facts appear. Thirdly, by putting the Tuskegee Study in historical perspective, hopefully the reader will have learned that syphilitic disease acquired in 1921, 1924, and 1929 would have benefited not at all from the antisymphilitic treatment as used in those days or in 1932, the time of setting the Study, in terms of the *unlikelihood* of continuous adequate therapy. Additionally, it should be clear that treatment was *not* withheld, and though no treatment was forced upon men of the Study, they had the freedom of taking what treatment they found convenient or could afford as did their brethren in the community. (That some availed themselves of this is documented, both as regards metal therapy and penicillin.)

That the untreated as well as treated syphilitics had both a greater rate of mortality and morbidity than the untreated matched controls was documented to be somewhat of the order found by Bruusgaard<sup>4</sup> and others. This is not surprising. No one has ever implied that syphilis is a benign infection. Since the major cause of morbidity and mortality was related to car-

diovascular disease, a final word must be directed to this problem.

Since it is obvious that a deformed aortic valve leaflet or a saccular aortic aneurysm can not be altered by medical treatment, the remaining questions are: (a) can aortic disease be prevented, and (b) if present, will treatment alter the course of cardiovascular disease—or in terms of the Tuskegee Study—would antisymphilitic treatment, if adequate in 1932, have prevented morbidity and mortality, i.e., treatment after existence of latent disease 3, 6 or 9 years after infection, or, even more, treatment with penicillin 19, 22 or 25 years after infection!

Basic to this question is whether uncomplicated syphilitic aortitis can be diagnosed—a question shrouded in controversy for four decades. In 1932, Moore and associates<sup>16</sup> suggested seven criteria for the diagnosis of uncomplicated aortitis on the basis of findings in 105 cases shown at autopsy. Unfortunately, they left numerous gaps in the clinical and pathologic evaluations. However, the Cooperative Clinical Group accepted these criteria in 1936, and they were applied in the earlier papers of the Tuskegee Study. Kampmeier and colleagues<sup>17</sup> reviewed this subject, documented disagreements by others of these criteria, and from their own necropsy studies concluded "that the clinical diagnosis of uncomplicated aortitis is, for practical purposes, impossible." Since this diagnosis is open to question, the evaluation of antisymphilitic treatment as a prophylactic against cardiovascular syphilis can be determined only indirectly. The best data were provided by the Clinical Cooperative Group, which evaluated the outcome of treatment of 1,936 patients having latent syphilis treated adequately, and in only 31 patients could the diagnosis of cardiovascular syphilis be made at a later date. Moore and his associates<sup>18</sup> published figures purportedly showing that treatment of patients having the *complications* of aortitis lived longer if given antisymphilitic treatment. (This and several other similar studies gave no consideration to the presence or absence of congestive failure as related to extension of life.) Kampmeier and Combs,<sup>19</sup> in a study of 163 patients having syphilitic aortic insufficiency, concluded that their "study does not indicate

that adequate antisymphilitic treatment influences favorably the prognosis of syphilitic aortic insufficiency."

The implications for the Tuskegee Study are that if the men having latent syphilis of 3, 6 or 9 years' duration had been *forced* to take adequate treatment (60 or more weekly doses of a metal), cardiovascular syphilis might have been avoided in most. In our free society, antisymphilitic treatment has never been forced. Since these men did not elect to obtain treatment available to them, the development of aortic disease lay at the subject's door and not in the Study's protocol. As for the failure to exhibit penicillin in the treatment of these patients the same statements apply—in fact it has been indicated above that 34 patients had received treatment with penicillin. Such treatment was, of course, of little significance, since syphilis generally takes its toll in mortality and/or morbidity by a quarter of a century after infection. Obviously much literature has accumulated in the area of syphilitic cardiovascular disease since the papers quoted in the thirties and early forties. However, attention to them would be inappropriate in a discussion of continuing evaluations of the Tuskegee Study which were based on concepts of diagnosis and treatment as practiced in the days of arsenotherapy.

Though the "curative" effect of 60 injections of a metal in *continuous* order, and later a few injections of penicillin in the treatment of early syphilis became firmly established, the effectiveness of treatment of late, and especially late latent syphilis has never been so well proven. The Tuskegee Study was undertaken to shed some light on this, but added little to Bruusgaard's data. That these questions still remain is suggested by a recommendation of the National Commission on Venereal Disease,

"That studies be undertaken to determine the effectiveness of current treatment of syphilis and gonorrhea, particularly of late latent and tertiary syphilis."<sup>20</sup>

Finally, in *recapitulation*, certain facts evolve. (a) At no time in the 40 year Tuskegee Study is there a hint that treatment desired by a subject was denied him; in fact all the periodic reviews reveal that more and more of the subjects had chosen to be treated *under the same circumstances as others in their community*, albeit inadequately, but

as elected by the patient and/or his doctor. (The report\* of 40 years stated that all but one of the syphilitic group still living had had antisymphilitic treatment.) (b) The prognosis therefore in patients having late latent syphilis in the Study group was no better or no worse than that of many hundreds of thousands of other syphilitic US citizens of their generation bearing the diagnosis of late latent syphilis. (c) The most important manifestation of late syphilis, aortitis, as diagnosed in the uncomplicated state during the earlier years of the Study was *on dubious, or at best* upon controversial grounds. (d) The lethal complications of aortitis (coronary ostial stenosis, and especially aortic insufficiency or aneurysm) had never been proven indubitably to be altered by antisymphilitic treatment. (e) Granted *adequate* treatment of late latent syphilis might have delayed or avoided the complications of aortitis, but accepting the clinical experience that these complications develop by about a quarter of a century after infection, it becomes obvious that the institution of penicillin treatment at 19, 22, and 25 years after infection would raise questions. Firstly, why should these men be singled out over their fellows in the community for treatment not forced upon others, and secondly, would it alter the prognosis at all!\*\*\* (f) The Study has shown that untreated syphilis is accompanied by morbidity, mortality and pathologic findings as described by others in the past.

This editorial should point up Osler's accusations directed to an irresponsible press, and the irrelevancy of certain Congressmen's emotional reaction to the Tuskegee Study.

R. H. K. □

\*Read at the Annual Meeting of the American Venereal Disease Association, June, 1971—unpublished

\*\*\*In the days of the hazards of metal therapy, one well known syphilologist used to comment, "If the patient has had syphilis for 25 years without clinical disease, he is to be congratulated and not treated." I followed this advice, with exceptions, of course.

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(Continued on Page 66)

"For courage mounteth with occasion"  
—*Shakespeare*



One aspect of the practice of medicine that is never discussed and to my knowledge never written about is the raw courage required of a doctor. This element of the character of physicians is demonstrated every day in our prac-

tices, in which, we take on problems, inject our skills into impossible situations, and win! It is demonstrated in every emergency room encounter, and at the bedside of every difficult or severely ill patient. In these situations the physician lays it all on the line, his skill, his training, his experience, and often his life and fortune, in an attempt to help a fellow human creature in time of great need. That these encounters become routine is merely a public image of the cool, competent physician—they never become routine in the soul of a doctor.

This raw courage, in my opinion, is both congenital and acquired. In the first place it takes a great deal of innate courage for a young student to stare in the face ten to twelve years of arduous training which he knows will tax him to the fullest intellectually, financially, socially, and emotionally. After pre-med success, his courage is tested again and again by his teachers and his peers. Even greater trials occur during in-

ternship and residency because of the gradually increasing responsibility to the point of total responsibility. Courage is a necessary acquisition as a by-product of a total medical education: the mental and moral strength to venture, persevere and withstand danger and difficulty.

#### WHAT KIND OF COURAGE IS REQUIRED?

The courage to continue a fight against death in the face of over-whelming odds. ("Any coward can fight a battle when he's sure of winning" Eliot.) The courage to be calm and efficient in times of maximum stress. The courage to start a practice on no assets other than his skills. The courage to practice alone in a small community without the trappings of the big medical center and readily available professorial consultation. The courage to continue to function for twenty-four hours a day if the occasion demands it. The courage to answer yet another call in the face of bone crushing fatigue.

Most men will be required once or twice in a life time to draw on their reserve of courage, but to physicians this occurs every day or several times a day or night.

Soon the considerable courage of physicians will be supremely tested again. The outcome will determine the future of the American physician and American medicine. I refer to the courage to work together, to elect strong competent leaders, and to bargain collectively to retain the traditional freedoms of American medicine that have made it great. □

*S.R. McCampbell, MD*

# Clinical Results With An Extracaval Prosthesis and Description of A New Intracaval Filter

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*A new intracaval filtering device is described that maintains patency and reduces complications when compared to previous techniques.*

**P**ULMONARY EMBOLISM continues to be a potentially lethal and frequent complication of venous thrombosis. Reliance on clinical signs alone probably leads to an underestimate of the frequency of embolism,<sup>26</sup> and a prospective study in elective surgical cases showed an overall incidence of 14.1% of both autopsy-confirmed emboli and new perfusion defects on lung scan following operation.<sup>2</sup> The majority of patients with pulmonary emboli respond to anticoagulation and conservative measures; however, survivors of pulmonary emboli remain likely candidates for recurrent embolization and deserve consideration for an inferior vena caval partition or filtration procedure.

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Various techniques are presently advocated to prevent macroembolization to the pulmonary circuit including: suture ligation of the inferior vena cava (IVC),<sup>15, 16, 17</sup> plication of the IVC with nonabsorbable interrupted mattress sutures,<sup>25</sup> metal staples,<sup>21, 22</sup> and plastic clips,<sup>1, 4, 7, 13</sup> and intracaval prosthetic devices such as filters,<sup>5, 8</sup> balloons,<sup>6, 14</sup> and springs.<sup>19</sup> We have developed an external channeling prosthesis to provide both continued patency after capture of an embolus and better protection against microemboli which can produce chronic pulmonary hypertension and cor pulmonale.<sup>3</sup> In addition, preliminary experimental studies have been performed with an intracaval filter device inserted transvenously to avoid general anesthesia and laparotomy in high risk patients. Our clinical experience with the extracaval channeling prosthesis and a case report utilizing the intracaval filter device form the basis for this report.

## MATERIALS AND METHODS

The channeling prosthesis is a two-piece clip of Teflon® made with tapered conical orifices which will trap all embolic material greater than 2.5mm in diameter (Figures 1, 2).<sup>\*</sup> At the University and Veterans Administration Hospitals in Oklahoma City these prostheses were applied to the IVC below the renal veins in 18 patients ranging

<sup>\*</sup>May be obtained from Kimray Corporation, Oklahoma City, Oklahoma.

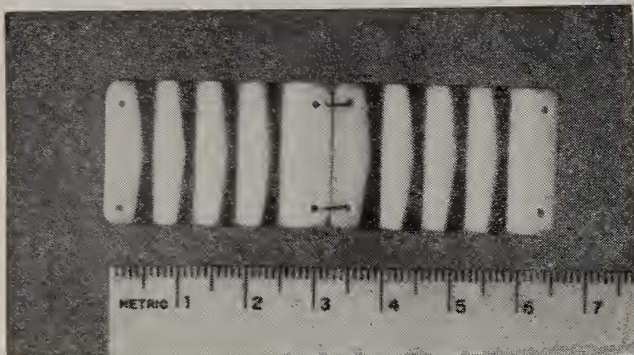


Figure 1 Vena caval prosthesis shown in open position demonstrating the tapering channels which permit laminar blood flow. Sutures are usually placed through one edge of the two halves permitting it to close like a book over the vena cava after positioning.

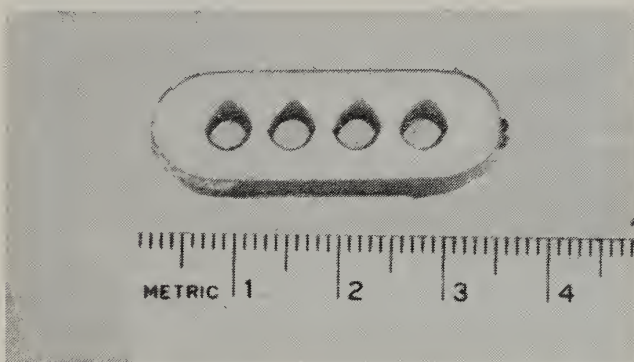


Figure 2 End-on view of the prosthesis in a closed position showing the orifice size. Application to the vena cava creates a flow orifice 2.5 to 3.0mm in diameter.

from 18 to 75 years of age. Eleven of the patients were male and seven were female. The main predisposing factor was thrombophlebitis which was documented in 11 patients. Additional predisposing factors were recent surgery in six cases, chronic obstructive pulmonary disease in four cases, cardiac disease in two cases, hormone therapy in two cases and undetermined in two cases (Table I). The indications for caval interruption were (1) recurrent episodes of pulmonary embolism despite anticoagulant therapy in 14 patients and (2) embolization

TABLE I

PREDISPOSING FACTORS

Thrombophlebitis	11
Recent Surgery	6
Chronic Obstructive Pulmonary Disease	4
Cardiac Disease	2
Hormone Therapy	2
Undetermined	2

in patients for whom anticoagulant therapy was contraindicated in four patients. Heparin was administered to all patients as soon as the diagnosis of pulmonary embolism was suspected if there were no contraindications to its use. Radioactive lung scans were obtained in all patients as a screening procedure. Pulmonary arteriograms were performed in seven patients for confirmation of the diagnosis prior to placement of the channeling device. Inferior vena cavaograms were performed in seven patients at intervals of two weeks to four months and in three patients at two years postoperatively.

OPERATIVE TECHNIQUE AND RESULTS

The vena caval clip was applied at laparotomy in twelve patients and via the retroperitoneal approach in six. After the IVC was exposed an adequate length was mobilized to enable placement of the prosthesis

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Since his graduation from Baylor University College of Medicine, Lazar J. Greenfield, MD, has been certified by the American Board in General and Thoracic Surgery. He is now Professor of Surgery at the University of Oklahoma Health Sciences Center. Doctor Greenfield is a member of the American Surgical Society and the University Surgeons Association for Thoracic Surgery.

just below the renal veins. At least one pair of lumbar veins required division in five cases for satisfactory application of the clip. All female patients who underwent laparotomy also had ligation of the left ovarian vein at the time of placement of the prosthesis. General anesthesia was used in all patients and no intraoperative complications occurred.

Only one of the 18 patients was suspected of having sustained a recurrent pulmonary embolus four months postoperatively, suggested clinically and by perfusion defect on lung scan. She was in congestive heart failure and responded well to anticoagulation, diuretics and digitalis. Six additional patients remain on postoperative anticoagulation. Four patients died within five days of operation of underlying diseases and autopsies obtained in three of them did not suggest additional embolism as a contributing factor. Follow-up data were obtained in 12 of the remaining 14 patients.

Four patients had minimal postoperative edema of the lower extremities at the time of follow-up examination but were asymptomatic with good exercise tolerance. The follow-up period ranged from six months to three years.

Seven of the 12 patients available for study had postoperative vena cavagrams. In three patients the IVC was noted to be patent without collaterals. Partial IVC patency with few collaterals was present in three patients. In only one case was there complete caval occlusion with a large number of collaterals, and of interest, this was not in the patient with the suspected recurrent embolic episode (Table II). Vena cavagrams in one patient at two and one-half years are demonstrated in Figure 3.

#### EXPERIMENTAL STUDIES

The intracaval device used for filtration was fashioned from six strands of .015" stainless steel spring wire shaped into a cone with 35° angulation and small, fine curved hooks at the base which provided fixation

TABLE II

#### POSTOPERATIVE IVC ANGIOGRAMS

Cava patent - no collaterals	3
Partial caval patency - few collaterals	3
Caval occlusion - large number collaterals	1



Figure 3 Inferior vena cavagram two and one-half years following application demonstrating maintenance of patent channels without development of collateral flow.

in the IVC (Figure 4). The catheter for insertion uses a receptacle for the folded device and an obturator which discharges the unit permitting it to spring open when positioned in the IVC (Figure 5). The geometry of the conal shape permits filling with thrombus without significant reduction in cross-sectional flow area until more than 70% of its depth is occluded.

Twenty-four adult mongrel dogs ranging in weight from 18 to 28 kg were anesthetized with intravenous sodium pentobarbital (25 mg/kg). The femoral vein was exposed and cannulated with the catheter unit containing the filter device which was positioned under fluoroscopy below the level of the kidneys. Postoperative anticoagulation was not used on any dog. In an initial 12 dogs, vena cavagrams were taken at one week in two dogs, at two weeks in two dogs, at three weeks in four dogs, and at four weeks in four dogs using 50% hypaque to confirm patency. After this, five to seven 3mm autogenous thrombi, depending on animal size, were released in the femoral vein. Vena cava-

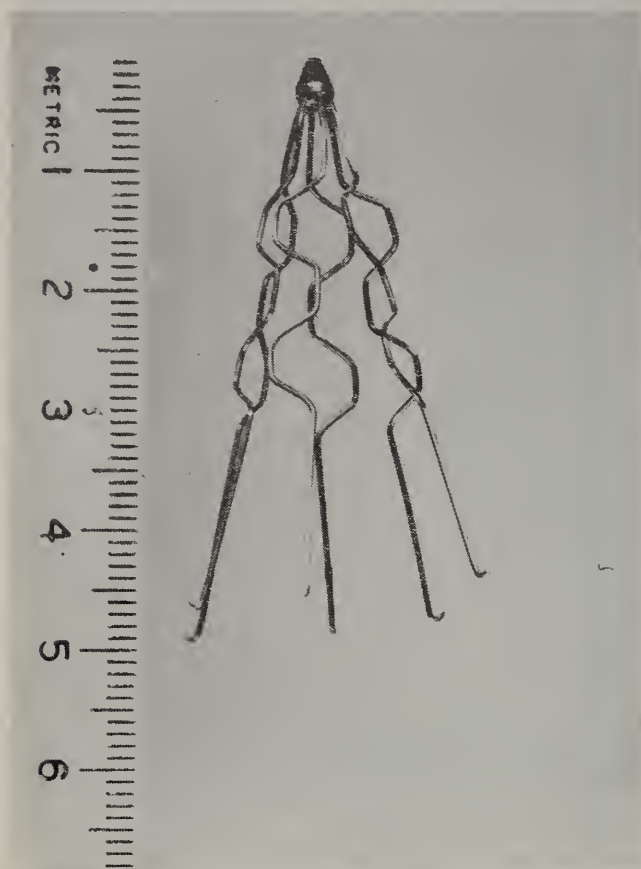


Figure 4 Side view of the intracaval filter device shown in fully expanded position. Fixation is provided by the fine recurved hooks which grasp the vena caval wall without penetration through it.

grams then were repeated to determine the ability of the filter to trap emboli and still



Figure 5 The insertion device is attached to a nylon catheter for positioning under fluoroscopy. The filter unit shown on the left is folded onto the bullet-shaped carrier which shields the hooks within a cup at the rear until the plunger pushes forward in the nose of the carrier. The filter then springs open as it is freed from the cup and attaches itself to the vena caval wall.

maintain patency. From two to seven days later 12 animals were sacrificed and the segment of the IVC containing the filter and emboli was removed for gross examination.

Vena cavagrams after placement of the device, and without autogenous thrombi, revealed complete patency of the IVC at each of the weekly periods and no evidence of thrombosis on the bare struts of the filter. A small amount of thrombus was found after two weeks in two dogs on the inner margin of the apical hub of the device. Emboli injected into the femoral vein were consistently trapped by the filter device as demonstrated by the follow-up vena cavagrams with preserved flow around the thrombi (Figure 6). Postembolization lung scans showed no evidence of perfusion defects indicative of failure to trap emboli or their subsequent migration. Gross examination of the IVC at autopsy revealed that there had been no evidence of retroperitoneal bleeding at the implantation site and no significant penetration of the vena caval wall. Also, all injected emboli were found trapped by the filter device in each animal, and there was no evidence of progression of the thrombus to occlude the IVC over periods of observation from two to seven days.

An additional 12 dogs have been studied for up to 16 weeks following insertion of a filter and embolization. These animals show evidence of resolution of the thrombi within the filter with sustained flow and no evidence of development of collateral veins.

#### CASE REPORT

V. L., a 62-year-old male, developed pain in his left lower chest and upper abdomen. Shortly after the onset of pain, he collapsed at home and was brought to the Okemah Memorial Hospital where he was found in profound shock. The patient was resuscitated in the emergency room and was admitted. Over the next three days the patient had several episodes of supraventricular tachycardia and hypotension requiring vasopressors. A diagnosis of recurrent pulmonary embolization was made and the patient was anticoagulated with heparin.

He continued to have recurrent episodes of supraventricular tachycardia and hypotension suggestive of further embolization.



Figure 6 Inferior vena cavagrams using 50% Hypaque® obtained after injection of autologous thrombi. Radiolucent thrombi are seen trapped in the apex of the cone filter while contrast media flows uninterrupted. No collateral vessels are evident showing lack of a pressure gradient.

On the fifth day following admission to the hospital, it was elected to explore the patient's abdomen and to introduce an inferior vena caval filter.

Because of inability to pass the filter into the IVC, a filter was placed in both common iliac veins (Figure 7). The postoperative course was benign and the patient steadily improved. One week following surgery he was transferred to University Hospital where pulmonary scans were consistent with multiple pulmonary emboli and venous angiograms revealed patency of the venous filters with residual thrombus in the popliteal vein.

The patient continues to do well six months following operation.

#### COMMENTS

The treatment of recurrent non-lethal pulmonary embolism is controversial, but the value of ligation or plication of the IVC as

a life-saving procedure has been well demonstrated. However, significant problems may develop after total occlusion of the IVC including an acute and potentially lethal reduction in circulating blood volume due to venous stasis,<sup>12</sup> and a higher incidence of recurrent embolism.<sup>18</sup> These considerations have contributed to a sustained interest in developing an ideal method to partition or filter the IVC to a degree which would permit capture of emboli of a potentially fatal size without interference with venous return from the lower extremities. Such a device would permit continued controlled access of inferior caval blood flow rather than the uncontrolled access from dilated collateral veins which occurs after IVC occlusion.

The discussion becomes academic when a large embolus is trapped by most filtration techniques producing complete obstruction to IVC flow which is usually permanent. Some cases of recanalization however have been reported.<sup>11, 12, 24</sup> It was the goal of the channeling device to permit embolus capture without occlusion and the flow pattern in

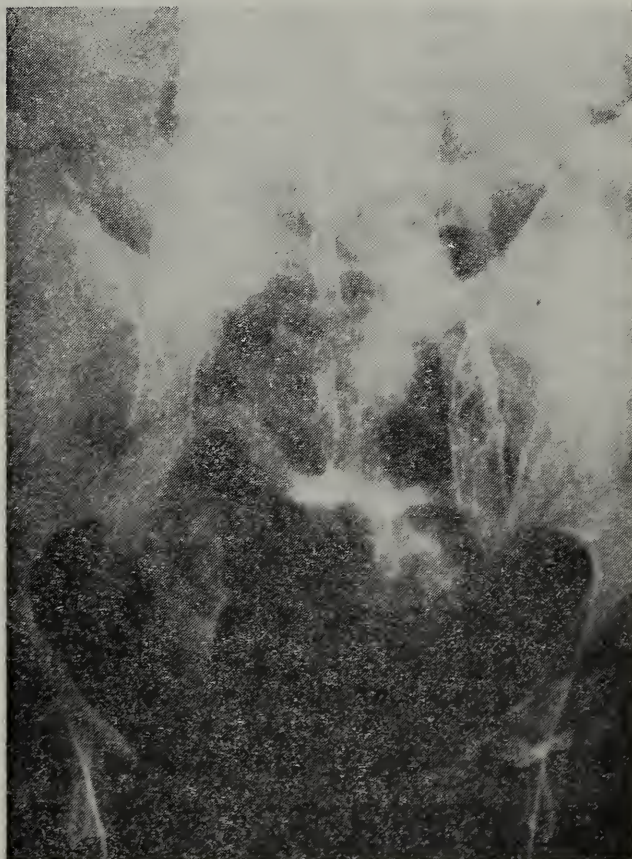


Figure 7 Bilateral lower extremity venous angiograms revealing patency of common iliac veins with filters in place. Unobstructed flow in the common iliac veins, through the filter, is demonstrated.

three of seven vena cavagrams suggests that this occurred. The evidence of total occlusion in only one patient and the lack of significant lower extremity edema in the remaining patients supports this concept. The extension of this principle to an intracaval device which can be inserted under local anesthesia would have obvious advantages provided that the hazard of penetration of the IVC for fixation could be eliminated and still provide embolus capture without the undesirable sequelae of IVC occlusion.

Mobin-Uddin, et al<sup>8,9</sup> initially reported successful application of an umbrella filter device in poor risk patients. However follow-up evaluation showed significant complications including filter dislodgment with migration or misplacement of the filter in other veins (eg, renal, iliac, hepatic<sup>9,10,23</sup>), duodenal<sup>10</sup> and ureteral perforation<sup>20</sup> and hemorrhage<sup>10</sup>. The Eichelster catheter filter device<sup>5</sup> has been reported to be advantageous because it is removable and carries no risk of embolization.<sup>27</sup> However it has large interstices which may allow pulmonary embolization. Hunter, et al<sup>6</sup> have reported the experimental use of a completely occluding balloon but in addition to uncontrolled colaterals there would be a risk from deflation of the balloon or necrosis of the IVC. Moser, et al<sup>14</sup> also have reported experimental work with reversible interruption of the IVC by means of a balloon catheter. The problem of pressure necrosis also exists with this type intracaval device as well as the Dacron coated wire spring device reported by Pate, et al.<sup>19</sup>

The preliminary results using the new intracaval filter device in dogs are encouraging in that no immediate or late complications occurred, all emboli were trapped and patency was uniformly maintained for the period of observation. Although the introduction of a catheter in the femoral vein carries a potential risk of dislodging thrombi, the techniques used during venous thrombectomy and ease of removal of obvious thrombi should minimize this hazard.

In the case presented, a patient with the clinical diagnosis of recurrent pulmonary emboli was treated successfully and subsequent studies confirmed the original impression. The availability of fluoroscopy

would allow one to identify exact placement of the device and avoid the need for multiple devices as used in this patient. The ability to avoid prolonged general anesthesia and a major intra-abdominal operative procedure was felt to be beneficial in this patient.

## SUMMARY

A series of 18 patients who underwent IVC plication using a channeling prosthesis has been followed for periods of six months to three years. Only one patient has suspected recurrent pulmonary embolization and two patients had minimal lower extremity edema. Four patients died within five days of operation of associated disease. The concept of embolus capture without loss of IVC patency demonstrated in three patients was extended to the design of an intracaval wire filter device. Preliminary experimental studies in dogs with the device confirmed ability to trap all emboli with continued patency and fixation without penetration of the wall of the IVC. A single patient is reported showing the usefulness of this device and further clinical experience is anticipated. □

We would like to thank Dr. Noel Miller, Okemah, Oklahoma, for permission to include his patient in this presentation.

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## INTERNAL MEDICINE REVIEW COURSE

1973

Every Wednesday  
5:15 p.m. to 7:15 p.m.

Developed by

The Department of Medicine  
Office of Continuing Medical Education for Physicians  
University of Oklahoma Health Sciences Center

Coordinator: Stephen D. Shappell, MD

DATE	TITLE	SPEAKER
February 28, 1973	INFECTIOUS DISEASE I	Everett Rhoades, MD
March 7, 1973	INFECTIOUS DISEASE II	Everett Rhoades, MD Sylvia Bottomly, MD
March 14, 1973	METABOLIC DISORDERS PRESENTING IN THE ADULT	Richard Marshall, MD
March 21, 1973	TROPICAL DISEASES	Everett Rhoades, MD
March 28, 1973	VALVULAR HEART DISEASE	W. H. Oehlert, MD
April 4, 1973	ATHEROSCLEROTIC HEART DISEASE CARDIOMYOPATHIES	S. D. Shappell, MD
April 11, 1973	NEUROLOGY	C. G. Gunn, MD
April 18, 1973	CONGENITAL HEART DISEASE PRESENTING IN THE ADULT	S. D. Shappell, MD
April 25, 1973	"OPEN DATE"	
May 2, 1973	GENETICS	J. Rodman Seely, MD
May 9, 1973	IMMUNOLOGY	Robert Oleinick, MD
May 16, 1973	ALLERGY	James Wells, MD

# Grandmother's Poisoned Well:

## Report of A Case of Methemoglobinemia

### in An Infant in Oklahoma

JEROME H. JONES, MD  
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*Alert house officers detected an unusual and correctable case of cyanosis in an infant. Inquisitive medical students conducted a thorough epidemiologic investigation which raised several intriguing questions about methemoglobinemia.*

**M**ETHEMOGLOBINEMIA\* resulting from ingestion of drinking water contaminated with nitrates as well as from exposure to other hemoglobin oxidizing chemicals is well documented<sup>1, 2, 3</sup>. Comly<sup>4</sup> in 1945 first equated methemoglobinemia in two infants with well water of high nitrate content. Most cases have occurred in early infancy and the infants are described as "well" until they develop cyanosis unchanged by crying or oxygen administration. Respiratory distress does not occur except when very high levels of methemoglobin are present. Extensive use of wells as primary sources of potable water in rural areas of Oklahoma and other states continues to raise the specter of the "blue baby".<sup>5</sup> The cyanosis of methemoglobinemia

must be distinguished from that secondary to cardiopulmonary and hematologic abnormalities and other types of poisoning.

This paper reports the occurrence of methemoglobinemia in a young infant resulting from the ingestion of well water and the results of an epidemiological investigation of the rural Oklahoma community in which the family resided.

#### CASE REPORT

K. B., (No. 45-18-85), a 10-week-old Caucasian female, had been well until a few hours before admission. Although the patient had been breast fed, she had been given a bottle of tap water the morning of admission while visiting her grandmother's home in Kendrick, Oklahoma, a small town 50 miles northwest of Oklahoma City. Shortly thereafter her mother noted the patient having a "slight choking sensation" with "difficulty breathing for a few seconds," after which the infant became "quite blue." A physician was consulted who referred the patient to Children's Memorial Hospital, University of Oklahoma Health Sciences Center for evaluation.

The baby was the result of a full-term, uncomplicated pregnancy, labor and delivery. Birth weight was nine pounds, seven ounces. Breast feeding was instituted almost immediately and the infant thrived. Examinations at three and six weeks had been unremarkable. There was no history suggesting infection, cardiac disease, respiratory problems or blood diseases. Family and social histories were non-contributory. No history of exposure to toxic agents could be obtained at the time of initial examination.

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\*The term methemoglobinemia, although in common usage, is a misnomer in that methemoglobin is formed only within the erythrocyte and is not freely circulating in the plasma. In reality, this disorder represents a "methemoglobincythemia."

**Physical Examination:** The infant had a diffuse, "slate-gray" pallor to the skin which was unchanged by vigorous crying or oxygen administration. She was afebrile and was well nourished and normally developed (height, 59 cm, approximately 60th percentile, and weight, 6.20 kg, 90th percentile\*). Her head was normally shaped and free of bruits; the anterior fontanelle was normotensive. The eyes, ears, nose, mouth and neck were normal except for cyanosis of the vermillion borders and mucous membranes. The lungs were clear. The heart was normal with no murmurs or thrills. The pulse was regular and the rate was 228 per minute. The liver edge was palpated two centimeters below the right costal margin. Extremities were normal except for cyanosis of the nail beds. Neurological examination was normal.

**Laboratory Findings:** Blood obtained at the time of the initial venipuncture on admission was chocolate brown in color. The hemoglobin on this sample was 10.6 grams/100 ml; hematocrit, 31.6%, leukocyte count, 10,700 per cu mm.. The urine was normal. A chest roentgenogram was normal. An electrocardiogram confirmed a sinus tachycardia (200 to 210 beats per minute) and had a pattern suggestive of left ventricular hypertrophy.

**Clinical Course:** Because of the striking cyanosis and the absence of evidence of disease states accounting for it, the possibility of methemoglobinemia was considered, even though no history of toxic agent exposure could be elicited. Determination of blood methemoglobin in approximately six hours after onset of cyanosis revealed a markedly elevated level of 47.6%. Since the child's condition had improved somewhat during the initial evaluation and she was in no distress, a plan of close observation without specific therapy was elected. Within 14 hours after admission, the methemoglobin level had dropped to 12.9% with clearing of the cyanosis. (Figure 1) The remainder of the hospital course was uneventful. One week after discharge, she was seen in the outpatient clinic at Children's Memorial Hospital and was considered entirely normal.

**Epidemiologic Evaluation:** A careful clin-

\*Estimated from anthropometric growth charts developed by the Department of Maternal and Child Health, Harvard School of Public Health, Boston, Massachusetts.

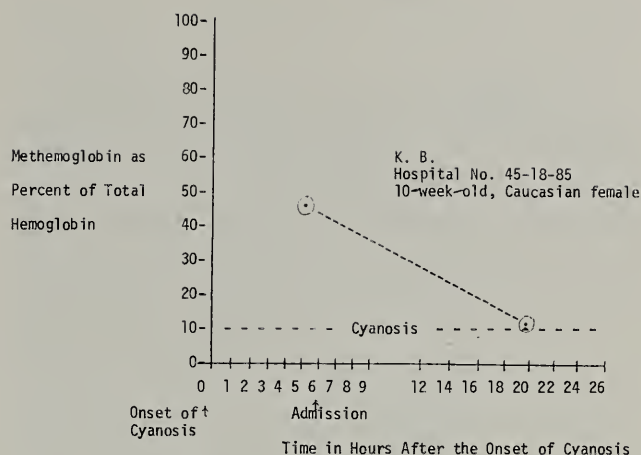


Figure 1 Change in Methemoglobin as Percent of Total Hemoglobin Over a Period of Time.

ical and epidemiologic investigation as to the cause of the methemoglobin in this child was carried out. Hemoglobin M disease was ruled out because of a negative family history and the results of hemoglobin electrophoresis which revealed an AA adult pattern with less than 2.0% fetal hemoglobin. To rule out a deficiency of diphosphopyridine nucleotide-dependent diaphorase, determination of methemoglobin reductase (diaphorase) activity was carried out. It revealed a level of 2.54 micromoles of ferrohemoglobin per minute per milligram hemoglobin (normal range: 1.8 to 3.5 micromoles\*).

The possibility of nitrate contamination of water or other foods was investigated thoroughly. A water sample from the well at the grandmother's farm contained a nitrate concentration of 110 parts per million (ppm\*\*), well above the water standard of 45 mg/liter\*\* of the United States Public Health Service<sup>6</sup>\*\*\*.

Figure 2 depicts a non-scale map of a selected sampling of wells in the vicinity of the grandmother's home. The water which the infant received had been obtained from a 15-year-old well, thought to be cased with galvanized steel and extending to a depth of approximately 60 to 65 feet. Since a nearby stream was found to be free of nitrates (Figure 2), surface contamination by com-

\*Normal values have not as yet been established for infants and children.

\*\*For practical purposes, mg/liter is equivalent to parts per million.

\*\*\*Other groups have stated that to be safe for domestic use, the concentration of nitrate should not exceed 10 ppm expressed as nitrate-nitrogen. World Health Organization, Expert Committee on Maternal and Child Health. Official Records of the World Health Organization 13:19, 1949.

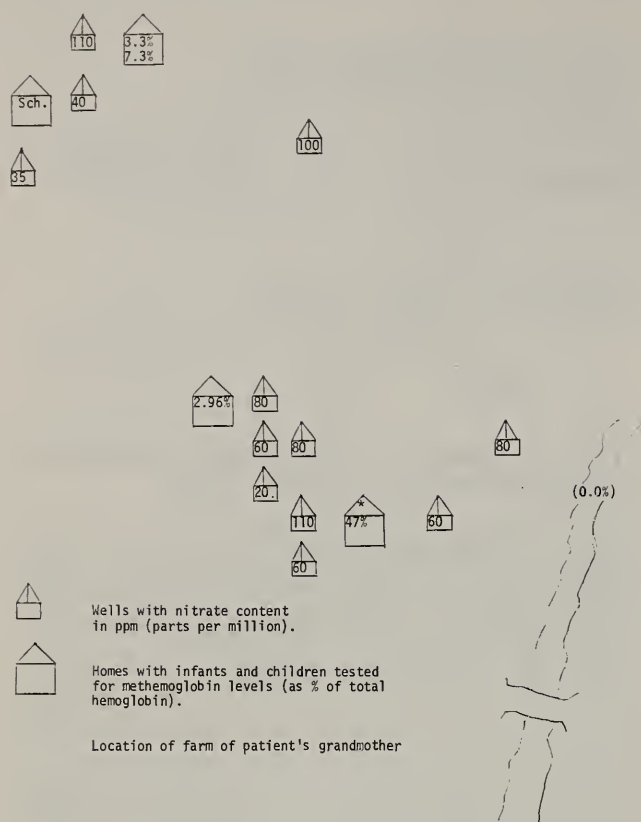


Figure 2 Non-scale Diagram Depicting Well Water Nitrate Levels and Percent Methemoglobin Levels in Infants in Selected Homes in Kendrick, Oklahoma

mercial fertilizers used in the surrounding area and by domestic animals penned nearby was discarded as the most probable cause of the contamination of the well.

A soil analysis revealed the surface soils of the Kendrick area to be of the Stephenville (StC) type which is characterized by fine, sandy loam; well-drained soils formed from weathered sandstone with a 3% to 5% slope<sup>7</sup>. This soil type imposes severe limitations on septic tank fields because sandstone rock is formed at a depth of two to four feet<sup>6, 7</sup>. The integrity of the casing of the well was not ascertained, nor was the level of fecal contamination, although contamination by septic tanks in the area was thought to be the source of the nitrates.

In addition to the well at the farm of the patient's grandmother, the nitrate concentration in the water from 11 additional wells was determined. The nitrate level of the water from these wells ranged from 20 to 110 ppm and the water from eight of these wells contained a nitrate content exceeding

the U. S. Public Health Service water standard of 45 ppm<sup>6</sup>. (Figure 2)

Blood methemoglobin levels were obtained from three infants and children ranging in age from eight months to four years residing in the community. (Figure 2) All of these children resided in the vicinity of wells, the water of which contained nitrate levels exceeding 45 ppm. However, none of the infants exhibited abnormal concentrations of nitrates in the blood. Further investigation of the feeding patterns of these children revealed that each was regularly given drinking water from these wells. However, it should be noted that the methemoglobin levels from the blood of these patients may be falsely low since approximately one hour was required to transport the blood speci-

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mens to the Health Sciences Center for measurement of methemoglobin levels.

#### DISCUSSION

"Slate gray" cyanosis in an infant without other signs of disease should suggest methemoglobinemia. Essentially, three types of methemoglobinemia exist: (1) genetically determined deficiencies of the erythrocyte reducing capacity; (2) genetically determined anomalies of the hemoglobin molecule (Hemoglobin M disease)<sup>8</sup>, and (3) toxic exposure to some oxidizing drug or agent. These are best understood in terms of cellular metabolism and biochemistry.

Hemoglobin (ferroprotoporphyrin) normally exists in the reduced or ferrous state. Oxygen in the process of oxygenation is loosely bound to four heme sites located in shallow depressions on the surface of the spheroid shaped hemoglobin molecule<sup>9, 10, 11</sup>. The oxyhemoglobin equilibrium leans strongly toward oxidation to the thermodynamically stable, oxidized or ferric form, methemoglobin (ferric form)<sup>12</sup>; however, resistance to oxidation of hemoglobin does occur. Although reasons for this are not fully known, a glutathione peroxidase system present within the red cell is thought to be one protective physiologic mechanism<sup>13</sup> preventing formation of methemoglobin. In spite of these mechanisms from 0.5% to 0.3% of the total hemoglobin is converted to methemoglobin daily with 1% present at any one time<sup>13, 14</sup>. Highly efficient enzymatic and nonenzymatic reducing systems within the erythrocyte serve to convert most methemoglobin formed. The reducing capacity of these systems in the red cell is approximately 250 times as great as the oxidizing capacity<sup>12</sup>. Coupled with the oxidation (Emden-Meyerhof glycolytic pathway) of glucose to pyruvate and lactic acid, *in vivo* studies indicate that over 95% of this reducing capacity is dependent on the presence of diaphorase (dehydrogenase 1, methemoglobin reductase or DPNH) and its reduced cofactor, diphosphopyridine nucleotide (DPNH), within the red blood cell<sup>12</sup>. A transient deficiency in reductive capacity of this system contributed to the infant's inability to deal with increased methemoglobin loads. Other reducing enzyme systems

are felt to function chiefly in a back-up capacity.

Permanent congenital absences of DPNH-dependent diaphorase can contribute to a build-up of methemoglobin levels of 40% to 50%. It is a rare "inborn error of metabolism" being reported chiefly in Alaskan Eskimos and inherited as a simple autosomal recessive<sup>15</sup>. To be symptomatic, an individual must be homozygous, and demonstrate a complete absence of diaphorase activity. An increased incidence of methemoglobinemia has not been described in Oklahoma Indians.

A rarer form of methemoglobinemia, hemoglobin M disease, has been reported in individuals with mutant globin polypeptide chains<sup>16</sup>. An abnormally placed, negatively charged amino acid group is substituted in the sequence of amino acids forming the globin's polypeptide chain. Critically situated, this single amino acid forms an unusually strong and stable steric complex with the heme moiety (oxidized iron atom). In this form it will not combine with oxygen, nor will hemoglobin be reduced enzymatically to the ferrous form. Amino acids can be substituted at several loci on either the  $\alpha$  or  $\beta$  chains resulting in similar abnormalities of oxygen carrying capacity. Collectively, the disease is inherited as an autosomal dominant; only the heterozygous form is compatible with life. Hemoglobin M disorders can be established by hemoglobin electrophoresis of blood treated with ferricyanide.

In infants, methemoglobinemia has occurred chiefly from absorption of aniline derivatives contained in some diaper marking dyes, shoe polish, wax crayons and disinfectants, canned foods containing a high nitrite content and nitrate-contaminated well water. In regard to the latter source, the major problem is the private, shallow well usually in a rural setting<sup>17</sup>. Contamination is felt to originate chiefly from wells of inadequate depth and those whose casing is not intact. In especially sandy surface soils, seepage of polluting nitrogenous decay products and ammonium fertilizers will flow into the well water supply. Geological formations *per se* contribute little to the problem. Bored or drilled wells of sufficient depths with intact casings present less of a problem. There appears to be no relationship between nitrate concentration and bacterial contamination;

the latter's presence merely indicates the level of gross contamination<sup>1</sup>. In a survey in Oklahoma, 415 unspecified well water samples with nitrate levels averaging 28 ppm were reported<sup>5</sup>. The water standard of the U. S. Public Health Service is 45 ppm<sup>6</sup>.

The association of methemoglobinemia in infants and water high in nitrates was first described in 1945 by Comly<sup>4</sup>. By 1950, a total of 278 cases with 39 deaths had been investigated and, in almost every instance, the source of water of these patients was a private rural well<sup>1</sup>. However, the problem is not confined to rural, private wells. In 1969, the Texas State Health Department found elevated nitrate levels in water from 605 of 787 wells (77%) analyzed in a four county area<sup>18</sup>. Commoner<sup>19</sup> cites areas of southern California where public health authorities have warned about excessive amounts of nitrates in well water. Methemoglobinemia resulting from ingestion of municipal water, obtained from wells, containing a high concentration of nitrates has been described<sup>20</sup>. Comly<sup>4</sup> has recommended against using well water containing a nitrate level of greater than 10 to 20 ppm. No cases of methemoglobinemia in his series resulted from ingestion of water containing up to 10 ppm. As yet, it is impossible to select with precision any concentration of well water nitrates which can be defined as safe or unsafe when ingested by young infants.

During the period 1960 through 1971, 12 proved cases of methemoglobinemia were seen at the Children's Memorial Hospital, University of Oklahoma Health Sciences Center. Ten of these were due to the ingestion of well water containing an excessive amount of nitrates.

What is the pathological process producing methemoglobinemia? Infants appear to be the only group susceptible to methemoglobinemia from water containing excessive nitrates. However, recently a case of well-water-associated methemoglobinemia using home dialysis has been reported<sup>21</sup>. Existing chiefly as nitrates, they are probably reduced to nitrites by bacterial action in the infant's upper intestinal tract, absorbed directly, and then rapidly oxidize hemoglobin<sup>22</sup>. Poisoning essentially represents an

overwhelming of all the infant's protective mechanisms. The neonate is prone to poisoning for a number of reasons. Fetal erythrocytes have increased sensitivity to methemoglobinization as compared with adult erythrocytes<sup>23</sup>. Fetal hemoglobin persists in some amount until puberty at which time more resistant cells appear. The mechanisms for this change in resistance to oxidation is not known. Additional data indicate that there may be a transient deficiency in the functional red blood cell reducing enzyme capacity, chiefly in DPNH dependent methemoglobin reductase activity<sup>24</sup>. Premature infants demonstrate higher levels of methemoglobin than term neonates who in turn have higher levels than older infants<sup>25</sup>. Other factors may act to increase the infant's capacity to reduce methemoglobin. Within the first week of life appreciable amounts of ascorbic acid are usually added to the diet with subsequent reduction in methemoglobin concentration. Kravitz, *et al*<sup>25</sup> suggested that the relative increase in destruction of erythrocytes normally occurring in newborns may account for increased methemoglobin concentration. An interesting hypothesis was advanced in 1945 by Cornblath and Hartman<sup>26</sup>. In infants with characteristically little or no free gastric acid (pH greater than 4) an overgrowth of nitrate reducing, nonpathogenic organisms may occur in large numbers in the upper gastrointestinal tract. Converted nitrites would then be absorbed directly. Comly<sup>4</sup> stated also that increased absorption of nitrites occurred with intestinal mucosal injury resulting from gastroenteritis. With age and increasing gastric juice acidity, bacterial growth is inhibited.

Because many infants exposed to excessive nitrates do not develop methemoglobinemia, additional influences such as duration of exposure, condition of the mucosa, amount of nitrate consumed and the presence of co-existent disease must be important in producing the clinical syndrome<sup>18</sup>. There is also evidence that female infants are more susceptible to nitrate poisoning than are male infants<sup>34</sup>.

Slate blue or lavender cyanosis appears with the accumulation of 1.5 to 2 grams/100 ml of methemoglobin<sup>27</sup>. An equivalent cyanosis is produced by the presence of five grams percent of reduced hemoglobin. This

represents approximately 10% of the total hemoglobin concentration. Kravitz, et al<sup>25</sup> found newborns (one to ten days old) to have a mean value of 0.22 grams methemoglobin/100 ml, representing 1.5% ( $\pm 0.81$ ) of the total hemoglobin concentration.

The hazard of methemoglobinemia is that of anoxia secondary to lowered oxygen carrying capacity. Not only is there a diminution in the oxygen carrying capacity, but the oxyhemoglobin which is present may be less able to dissociate at lower partial pressures of oxygen at the tissue level. Levels of methemoglobin up to 25% are tolerated well, the patient showing no abnormality except perhaps exertional dyspnea. At levels of 25% to 50%, at which levels moderate degrees of intoxication occur, cyanosis and varying amounts of vertigo, weakness, dyspnea and headache are seen; at levels above 50% lethargy in addition to other symptoms occurs. Between 60% and 85% levels, which are usually lethal, the amount of remaining oxygen is usually insufficient for life<sup>28, 29</sup>. When approximately 40% accumulates, cardiovascular mechanisms for increasing oxygen supply to the tissues are called into play. Dogs experimentally anesthetized with intravenous aniline to produce methemoglobinemia developed increased cardiac output, heart rate, arterial pressure and oxygen consumption<sup>30</sup>. This may explain the sinus tachycardia seen in our patient.

The risk that infants exposed to excessive nitrates have of developing symptomatic methemoglobinemia is difficult to evaluate. One infant, eight months of age, and two young children residing in the same rural community as the reported patient were studied and although all three had regularly ingested well water containing excessive nitrates, none had a history of clinical manifestations suggesting methemoglobinemia and the serum levels of methemoglobin in all three were not significantly elevated. However, this may be due in part to age since there is some evidence that infants less than four months of age are at greater risk than older infants<sup>33</sup>. The Public Health Service standard for drinking water concentration was established on empirical grounds and it was based on the fact that a preponderance of the reported cases of methemoglobinemia occurred in areas in which the concentration of nitrates was greater than 45 ppm<sup>37</sup>. There are

no data available on the number of infants exposed to high nitrate concentrations, and without such data, the risk of infants exposed to high nitrate concentrations cannot be calculated with any degree of certainty. It can only be concluded that there is a risk of well-water-associated methemoglobinemia for infants in certain rural areas which does not exist in communities with low concentrations of nitrates in drinking water<sup>37</sup>.

Once the disorder is diagnosed, management is relatively well defined. Avoidance of nitrate-containing waters for formula making is mandatory. The community based physician should alert other families with young infants to have their well water tested through the State Health Department.\* Nitrate-free potable water should be obtained from other sources. Mild and some moderately affected patients can be handled by removal from the offending source. Severe intoxication should be treated with methylene blue administered as a 0.1% solution in a dose of 2.0 mg per kilogram body weight administered intravenously. Methylene blue acts by accelerating the red cell's innate reducing capacity<sup>32</sup>. Methylene blue given orally causes nausea, vomiting, diarrhea, headache and tinnitus. Perivascular infiltration causes tissue necrosis locally. Caution in using methylene blue is indicated since acute hemolytic anemia, as well as urticaria, burning sensations and electrocardiographic evidence of ventricular musculature depression have occurred with the administration of this drug<sup>31</sup>. Although less effective, ascorbic acid 100 to 500 mg per day has been used.

## SUMMARY

A case of methemoglobinemia in a 10-week-old infant resulting from the ingestion of well water containing excessive nitrates is reported. The results of epidemiological studies in the rural community in which the patient resided are described. The infant developed clinical manifestations of methemoglobinemia after ingesting only a few formula feedings prepared with water from a well which, on later testing, was found to have an excessive content of nitrates. Older

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infants and children in the community showed no clinical or chemical evidence of poisoning despite regular use of drinking water from wells containing high concentration of nitrates. The clinical features, biochemical aspects, differential diagnosis and management of methemoglobinemia are reviewed.

# ACKNOWLEDGEMENTS

Miss Linda Draper and Mrs. Mary Ann Munter assisted in the preparation of this manuscript.

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# THE TUSKEGEE STUDY

(Continued from Page 51)

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# Polycythemia Vera in Oklahoma City Hospitals

JAMES E. GOIN

*Polycythemia Vera is a myeloproliferative disorder, poorly understood, which succumbs to differential diagnosis and of etiology does not appear on the horizon.*

**P**OLYCYTHEMIA VERA is generally accepted as a myeloproliferative disorder of unknown etiology. It has not received the widespread attention (in recent years) that the closely associated leukemias have; predominantly because of the average age of onset, the low frequency of the disease and the acceptance of adequate treatment by physicians. There is almost total absence in the literature of conjectures on the etiology of polycythemia vera.<sup>1</sup> Moreover, even less has been done to assess causal and statistical associations. This particular study was begun to fill some of this void by estimating certain epidemiological variables in hope of sufficient data to initiate a thorough statistical analysis and case control study.

## METHODS

This study was limited to the eight major hospitals (listed in Table 1) in Oklahoma City, Oklahoma. Records were examined on all patients admitted to the mentioned

hospitals, from January 1st, 1965 through December 31st, 1971, with the diagnosis of polycythemia. This group consisted of those individuals listed as secondary polycythemia, stress polycythemia, polycythemia of unknown etiology and polycythemia vera. In all, 201 records were examined and 33 were classified as polycythemia vera and 10 cases as possible polycythemia vera. Those listed as possible polycythemia vera resulted from insufficient information for discrimination. Diagnosis was strictly a multivariate approach including: clinical evaluation, history and laboratory results. It was felt that a case with increased hematocrit, hemoglobin, red cell volume, red cell mass and an arterial oxygen saturation of 90% or greater, in addition to splenomegaly with no history of syndromes which would result in increased erythropoietin activity, would be a prime candidate. Bone marrow examinations, increased platelets, IV-pyelograms, spirometry and blood gas studies also weighed heavily on final diagnosis. As expected, the usual misdiagnosis<sup>2,3</sup> was a result of Gaisböcks, Pickwickian and Cushing syndromes. Data were compiled on several epidemiological variables consisting of age at diagnosis, sex, race, occupation, previous surgery, present syndrome and treatment.

## AGE DISTRIBUTION

Polycythemia vera is a disease characterized by insidious onset and chronic course. As a result, the time of onset is difficult to

ascertain, although some authors have made estimates. Wasserman<sup>4</sup> obtained an average age of onset of 48.1 years, while Lawrence,<sup>5</sup> Perkins and associates<sup>6</sup> reported 52 years and 55.2 years respectively. Perkins and associates also reported an average age of onset for males of 53.2 years and for females 57.8 years. Modan<sup>7</sup> obtained a mean age of 60.3 years for newly diagnosed polycythemia vera cases with essentially no difference in the age distribution of males and females. This study yielded an average age at diagnosis of 58.7 years, with males averaging 58.9 years and females 58.2 years. The age span ranged from 33 years to 88 years. Examination of Table 2 illustrates the age intervals of highest frequency.

with polycythemia vera shows a maximum male to female ratio of 2:1,<sup>8</sup> based on 197 cases and a minimum ratio of 0.7:1,<sup>9</sup> based on 47 cases. This survey of patients in the Oklahoma City area yields a male to female ratio of 2.7:1. There appears to be no obvious reason for the apparent increase in this ratio. The Oklahoma State male to female ratio for all ages greater than 25 is .89. The same ratio for Oklahoma County, which accounts for approximately 20% of the state's population for this age group, is .86. Therefore, it is assumed that the population at risk in this survey is not significantly different from the expected male/female ratio. Also, this increased ratio may be a result of the small number of cases and may not be an adequate representation.

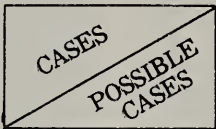
SEX DISTRIBUTION

A review of 12 reported series of patients

RACE DISTRIBUTION

Polycythemia vera is a disease which is worldwide in distribution. It was first de-

Table 1  
NUMBER OF BEDS, CASES AND POSSIBLE CASES OF POLYCYTHEMIA VERA BY YEAR IN THE EIGHT MAJOR HOSPITALS SURVEYED



HOSPITALS	# BEDS	65	66	67	68	69	70	71	TOTAL
Baptist	385	<div>CASES POSSIBLE CASES</div>	1	1 1	1	<div>CASES POSSIBLE CASES</div>	2	1	6 1
Deaconess	177	<div>CASES POSSIBLE CASES</div>	1 1	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	1 1
Mercy	180	<div>CASES POSSIBLE CASES</div>	1 1	1	2 1	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	1	5 2
Presbyterian	179	<div>CASES POSSIBLE CASES</div>	1	2 2	1	<div>CASES POSSIBLE CASES</div>	2	<div>CASES POSSIBLE CASES</div>	5 3
St. Anthony	572	1 1	2	1	<div>CASES POSSIBLE CASES</div>	1	1	1	7 2
South Community	200	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	1	<div>CASES POSSIBLE CASES</div>	0 1
University	407	1	1	2	<div>CASES POSSIBLE CASES</div>	1	<div>CASES POSSIBLE CASES</div>	<div>CASES POSSIBLE CASES</div>	5 0
Veterans	491	<div>CASES POSSIBLE CASES</div>	1	<div>CASES POSSIBLE CASES</div>	1	1	1	<div>CASES POSSIBLE CASES</div>	4 0
TOTAL	2591	2 1	8 2	7 3	4 3	3 0	6 1	3 0	33 10

Table 2

## AGE DISTRIBUTION FOR MALES AND FEMALES

SEX	31-40	41-50	51-60	61-70	71-80	81-90	Total
Males	2	2	7	10	2	1	24
Females	0	3	2	3	1	0	9
TOTAL	2	5	9	13	3	1	33

scribed by Vaquez<sup>10</sup> in 1892 and later crystallized by Osler<sup>11</sup> in 1908. Polycythemia vera is reportedly rare in blacks<sup>8</sup> and relatively common in Jews.<sup>12</sup> Of the 33 cases in this study, 30 were white and 3 were black. This white/black ratio of 10:1 is not so striking when compared to the white/black Oklahoma State and Oklahoma County populations of 13:1 and 9:1 respectively. In Oklahoma County, there were 10 cases reported; nine cases were white and one case was black. This results in a 9:1 case ratio, the same as the population ratio. Therefore, considering the population at risk in the Oklahoma City area, it appears that both whites and blacks are equally susceptible to the disease. Again, a special note should be afforded to the small number of cases. There were no cases reported among the Indian population which was approximately 3.1% of the state's population during the study period.

## PATIENT SYNDROME

The records were examined for initial clinical evaluation and history. The examination yielded the frequency of signs and symptoms, in Tables 3 and 4, respectively.

The history from the 33 cases classified as polycythemia vera revealed nine cases of previous hypertension, six cases of diabetes and three cases of peptic ulcers. In recent years, much has been accomplished in un-

Table 3

## FREQUENCY AND PERCENTAGE FREQUENCY OF SIGNS REPORTED IN THE 33 CASES DIAGNOSED AS POLYCYTHEMIA VERA

	frequency	percentage frequency
Plethoric	10	33%
Petechiae	2	6%
Obesity	6	18%
Splenomegaly	13	39%
Hepatomegaly	9	27%
Hepatosplenomegaly	7	21%

Table 4

## FREQUENCY AND PERCENTAGE FREQUENCY OF SYMPTOMS REPORTED IN THE 33 CASES DIAGNOSED AS POLYCYTHEMIA VERA

	frequency	percentage frequency
Bruising	3	9%
Epistaxis	3	9%
Headache	10	30%
Dizziness	4	12%
Abdominal pain	1	3%
Pruritus	6	18%
Malaise	2	6%
Melena	5	15%

derstanding the pathophysiology of the myeloproliferative disorders.<sup>13</sup> These accomplishments suggest that the increased risk of polycythemia vera patients developing ulcers and the excessive frequency of pruritus can be directly related to the activity of the basophils, resulting in increased levels of histamine in circulation.

## OCCUPATION

The 33 cases were classified into seven mutually exclusive sets consisting of: business owners, professionals, clerks, farmers, laborers, housewives and retired persons. Table 5 illustrates the distribution among the respective sets. Special note should be given to the business owners, clerks and professionals.

The professional group represents 21% of all cases and included in this group were two attorneys and one physician. The business owner group represents 6% of all cases and this consists of two bakery owners. The clerks represent 15% of all cases, which appears higher than expected. Table 5 seems to be consistent with the previous reports<sup>6</sup> of increased risk of polycythemia vera with higher social status. Since this apparent increased risk of polycythemia vera with high-

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Table 5  
NUMBER AND PERCENTAGE OF THE 33  
CASES OF POLYCYTHEMIA VERA CLASSIFIED  
BY OCCUPATION

Bus. Own.	Prof.	Clerks	Farmers	Laborers	Retired	H-Wives	Total
2	7	5	2	6	5	6	33
6%	21%	15%	6%	18%	15%	18%	99%*

\*The 99%, instead of the 100%, because of round off error.

er social status is confounded with better medical care, further studies will be needed to show that polycythemia vera is truly concomitant with social status.

## PREVIOUS SURGERY

In reviewing the records for previous surgical procedures, no particular pattern was observed for males. On the other hand of the nine cases of polycythemia vera in females, five were noted to have had hysterectomies several years prior to the date of diagnosis for this study. This may be a reflection of the small number of cases or it could indicate a true relationship. This anomaly, as of this date, has not been previously reported. The 55.6% of female cases with previous hysterectomies may not be so striking, for this age group, if an accurate prevalence rate were available for comparison.

## TREATMENT

The introduction by Lawrence in 1938, of radioactive phosphorus for the treatment of polycythemia vera, provided a simple and effective way of controlling excessive erythrocyte proliferation. At the same time, the controversy about whether P-32 actually has a leukomogenic effect or allows the patient to live long enough to develop myelogenous leukemia is still with us. Perkins and his associates<sup>6</sup> went to great lengths to settle this controversy and furnished strong evidence in favor of the former theory. This study of Oklahoma City hospital patients revealed seven patients treated by phlebotomy only, two with Busulfan (myleran), two with Pipobroman (vercyte), 15 with P-32 and five to be followed for later treatment. Two patients were given P-32 within the interval of this study and subsequent-

ly, one developed myelogenous leukemia and the other developed aplastic anemia. In all, the records contained four cases resulting in acute myelogenous leukemia, one with aplastic anemia and two with hemolytic anemia; all formerly diagnosed as polycythemia vera and treated with P-32.

## DISCUSSION AND CONCLUSION

This study of polycythemia vera in Oklahoma City illustrates the perplexing problems inherent in studying a disease of low frequency. When large numbers of cases are not available percentages and relationships must be viewed meticulously, while the need for greater precision and accuracy in diagnosis is inescapable. Altogether, 201 records were examined, revealing 33 cases of polycythemia vera and 10 possible cases of polycythemia vera. The average age at diagnosis was 58.7 years with no apparent difference in the sex distribution. The male/female ratio of 2.7:1 was higher than 12 previous reports, although this could reflect the small number of cases. Contradictory to other reports, the risk of polycythemia vera seems to be equally distributed among blacks and whites in Oklahoma. The patient syndrome and occupation tend to be consistent with other publications, while the previous surgery anomaly for females raises some interesting questions on humoral regulation of erythropoiesis. Radioactive phosphorus was used in approximately 50% of the patients diagnosed. This is primarily preferred because it is relatively safe, effective, longlasting and in general increases quality of the patient's life. On the other hand, one cannot ignore the seven cases treated with P-32 and later developed either leukemia, aplastic anemia or hemolytic anemia.

The incidence and prevalence of polycythemia vera is difficult to ascertain for obvious reasons. Assuming all patients developing polycythemia vera over the study period in Oklahoma County were seen in these hospitals, an annual incidence of 3.5 per million population can be calculated. This figure is close to Modan's annual incidence for the Baltimore Metropolitan area of 4.0 per million population.<sup>7</sup>

This study was initiated to circumscribe and examine the data on all patients with

the above diagnosis, who also fulfilled the prescribed criteria, with hope of sufficient data and sample size to suggest statistical associations and enlighten certain conjectures on the etiology of polycythemia vera. Since the sample size is relatively small, a case control study would undoubtedly prove fruitless. It is hoped that this paper will again raise questions concerning the etiology of polycythemia vera. ☐

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## ANESTHESIOLOGY FOR GENERAL PRACTITIONERS

April 9th-13th, 1973

University of Oklahoma College of Medicine

Oklahoma City

Sponsored by the Department of Anesthesiology of the University of Oklahoma College of Medicine, this course is limited to physicians who are not specialists in anesthesiology but whose practice currently includes the administration of anesthetics.

Enrollment fee is \$100.00 and the course enrollment is limited by available clinical facilities.

Complete details may be obtained from the Department of Anesthesiology, University of Oklahoma College of Medicine, P.O. Box 26901, Oklahoma City, Oklahoma 73190. ☐

## IMMUNE SERUM GLOBULIN

### For Protection Against Viral Hepatitis

Immune Serum globulin (ISG) is a sterile solution containing antibody derived from human blood for *intramuscular* use. It is 16.5% protein obtained by cold alcohol fractionation of large pools of blood plasma. It contains specified amounts of antibody against diphtheria, measles, and one type of poliovirus. Neither hepatitis-A or hepatitis-B has been transmitted by ISG.

When administered within one to two weeks after exposure, ISG prevents illness in 80 to 90 percent of persons exposed. ISG may not suppress inapparent infection, and long-lasting, natural immunity may result. The use of ISG more than six weeks after exposure or after onset of clinical illness is not indicated.

The decision to give ISG is based on assessing the possible hepatitis exposure. The following is a general guide for evaluation of exposure situations:

- (a) household contact: ISG recommended;
- (b) school contacts: ISG not routinely recommended; call health department;
- (c) institutional contacts: ISG often rec-



## News From The Oklahoma State Department of Health

- ommended; call health department;
- (d) hospital contacts: ISG not routinely indicated;
- (e) hemodialysis contacts: ISG not recommended;
- (f) office and factory contacts: ISG not routinely recommended;
- (g) common-source exposure: ISG may be recommended if common source is documented;
- (h) exposure to non-human primates: variable; call health department;
- (i) foreign travelers: ISG not recommended for usual tourist accommodations;
- (j) pregnancy: pregnancy is *not* a contraindication for receiving ISG.

Usual dosage: 0.02 ml/kg (contact health department for foreign travel and primate exposure recommendations). ISG is not recommended for prevention of hepatitis-B. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR DECEMBER, 1972

Disease	December	December	1972	Total to Date	
	1972	1971	November	1972	1971
Amebiasis	2	—	2	29	53
Brucellosis	—	—	1	8	5
Chickenpox	6	62	10	158	265
Encephalitis, infect.	2	3	3	20	44
Gonorrhea	844	763	681	9999	8320
Hepatitis, infect. & serum	70	161	95	829	921
Leptospirosis	—	2	—	2	3
Malaria	—	1	—	5	69
Meningococcal infections	6	1	1	15	9
Meningitis, aseptic	2	2	7	58	119
Mumps	2	32	3	158	230
Rabies in animals	12	11	11	290	281
Rheumatic fever	1	—	1	27	25
Rocky Mt. spotted fever	—	—	1	35	29
Rubella	2	1	2	43	71
Rubella, congenital syn.	—	—	—	—	—
Rubeola	2	2	1	12	796
Salmonellosis	22	13	11	165	195
Shigellosis	43	18	34	253	99
Syphilis	68	80	115	1141	1230
Tetanus	—	—	—	1	2
Tuberculosis, new active	30	26	28	330	347
Tularemia	2	3	—	13	20
Typhoid fever	—	—	—	4	3
Whooping cough	1	6	3	32	22

## OSMA Group Health Insurance Underwritten By Washington National

**OSMA**  
**JOURNAL** / news

OSMA members may now purchase a group health insurance package underwritten by the Washington National Insurance Company of Evanston, Illinois. Designed for physicians and their employees, the major medical program will be sold by the C. L. Frates Company and the Wilson and Wilson Insurance Agency, Insurance Counselors for the association.

After being formulated by the association's Council on Insurance, the new program was endorsed by the OSMA Board of Trustees. A master contract with Washington National will assure stability of the program and protect the interest of association members.

Complete information may be obtained by contacting the C. L. Frates Company, 4010 North Youngs, Oklahoma City 73112.

### BENEFITS AVAILABLE

A number of options are available so that physicians may tailor their health insurance coverage to their individual needs. For example, deductibles ranging from \$250 to \$1000 . . . in increments of \$250 . . . are available. Options as to hospital room allowances start as low as \$30 a day up to as high as \$75 a day . . . surgical benefit options range from \$1,200 to as high as \$3,000 for a single procedure . . . and maximum lifetime benefits are from \$18,000 to \$45,000, depending on the plan selected.

Premium rates vary according to the benefits chosen. A folder which briefly describes the program has been mailed to all OSMA members together with a short application form. Because of the many options available, all applicants will be personally contacted by an insurance agent upon receipt of the form.

### EMPLOYEE COVERAGE

Employees of physicians will be offered a version of the plan with a deductible of only \$100. A folder on this program is in preparation. Physicians who express an interest in employee coverage may indicate their desire

for further information on the short application form.

### INSURABILITY

During the initial enrollment period, Blue Shield coverage will be accepted as evidence of insurability for the new program. If the Blue Shield covered physician is uninsurable, he will be subject to the following maximum benefits: \$40 per day room allowance, \$24,000 maximum benefits, and a \$1,600 surgical schedule. Insurable doctors may select higher benefits.

If the OSMA enrolls 400 members during the enrollment period, all members of the association may purchase at least the benefits described above, regardless of insurability.

*In the brochure mailed to members, a statement was made which could be interpreted to restrict coverage under this contract. The plan will pay benefits regardless of whether a physician has other insurance or not, and this plan may be purchased in addition to any other health insurance carried.*

Washington National Insurance Company has been in business 65 years and has assets in excess of \$560,000,000. It is rated as "excellent" by Bests' Insurance Report, an authoritative source. □

## Oklahoma Medicare Administration Moves

On January 15th Oklahoma's Medicare Claims Administration moved to a new location and address.

The Administration is located at 1140 N. W. 63rd Street, Oklahoma City, Oklahoma 73116. Their offices are located on the third floor of the Glenbrook Center Building. New telephone number for Medicare is 848-7711.

Dan Morley, Administrator for the Aetna-Medicare Claims Administration asked that all correspondence be directed to the new address. □

## Annual Meeting Features Education and Entertainment

A mixture of education and entertainment await physicians planning to attend the OSMA's 1973 Annual Meeting. Scheduled for the newly redecorated Fairmont Mayo Hotel and the Tulsa Assembly Center, the meeting will be held April 26th through 28th.

Highlighting this year's meeting will be an OB-GYN Regional Seminar sponsored by the American College of Obstetricians and Gynecologists. The Seminar is designed for physicians and nurses interested in OB-GYN.

One portion of the seminar will feature a special session on fetal monitoring. Companies which manufacture this specialized equipment will be demonstrating it on Friday, April 27th, in the Tulsa Assembly Center. The demonstrations will be part of ten round table discussions on various OB-GYN problems.

In addition to the OB-GYN scientific portion scheduled for Friday, there will also be a morning seminar on Gastroenterology with emphasis on problems of the liver and pancreas. That afternoon there will be a seminar on oncology with emphasis on breast cancer.

The Oklahoma Chapter of the American Academy of Pediatrics will be holding a scientific session Friday afternoon during the meeting.

On Saturday morning, April 28th, the Oklahoma Society of Dermatology will sponsor a scientific session for its members and interested physicians. In addition there will be at least nine "medical round table discussions" open to all physicians. These will cover such topics as allergy, cardiology, endocrinology, gastroenterology, nephrology, neurology, newborn problems, oncology, physical medicine, etc.

The Saturday afternoon schedule will concentrate on the socioeconomics of medicine. At 1:00 p.m. AMA President Carl A. Hoffman, MD, will appear before a meeting open to all OSMA members.

Following the AMA President, there will be a medical office economics seminar conducted by two nationally known medical business consultants.

The entertainment portion of the annual

meeting will start Friday evening with a Gaslight party. The party is scheduled to start late in order to give physicians and their families time to have dinner at one of Tulsa's many fine restaurants. In addition, a number of medical specialty societies have planned formal dinners for the evening.

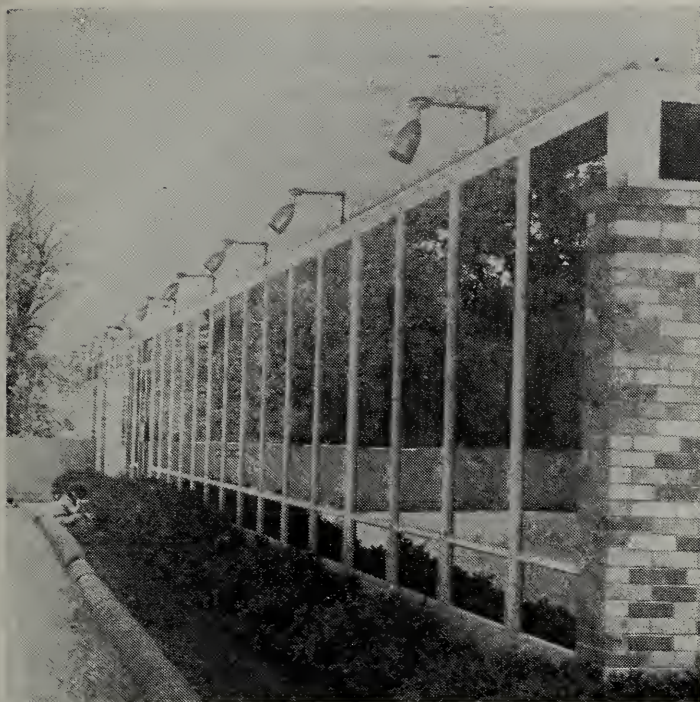
Saturday evening will start with the President's Inaugural Reception in the Fairmont Mayo's Pompeian Court. It will be followed at 7:00 p.m. by the Annual Inaugural Dinner-Dance in the Crystal Ballroom.

Free picnic luncheons are back again, this year. The picnic style standup luncheons will be served at noon on Friday and Saturday in the Tulsa Assembly Center.

The 1973 Annual Meeting of the Oklahoma State Medical Association will mark the 67th time the association has met. In addition to the education and entertainment, the association takes this opportunity to conduct its annual business meetings. The OSMA Board of Trustees Annual Meeting will be held Thursday morning, April 26th. The opening session of the Annual Meeting of the House of Delegates will be held Thursday Evening at 7:00 p.m. Reference committees of the House of Delegates will meet Friday morning and the closing session of the House of Delegates will be conducted Saturday morning. At that time the association will elect its officers for 1973-74. Doctor C. Riley Strong, MD, will assume the Presidency on Saturday when Stanley R. McCampbell, MD, steps down.

The woman's auxiliary of the association has a number of activities planned during the annual meeting. Their annual board meeting will be held Thursday afternoon. Friday morning the auxiliary will hold its first general session and at 12:30 a luncheon and style show will be presented in the hotel's Crystal Ballroom. The second general session for the auxiliary will take place Friday afternoon. This will be followed at 5:00 p.m. by a members-at-large tea.

Other meetings scheduled to coincide with the association's annual meeting include the annual meeting of the Oklahoma Medical Political Action Committee's Board of Directors. This group will meet Thursday afternoon, April 26th, at 2:00 p.m. The Association's Past-Presidents have scheduled a breakfast for 7:30 a.m. Saturday. □



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## **Wage-Price Controls Retained For Physicians**

Phase III of President Nixon's Economic Stabilization Program offered no relief for the nation's physicians. Specifically, the health services industry remains under wage and price controls, along with construction and food.

Exemption of the medical profession from Phase III price controls was immediately requested by the AMA in a letter to the President following his January 11th message to Congress ending Phase II of the Economic Stabilization Program. The strongly worded letter was signed by John R. Kernodle, MD, Chairman of the AMA's Board of Trustees.

In his letter to the President, Kernodle said, "The medical profession has once again been singled out under special controls. The physicians of America will not accept such discriminatory treatment."

### **Fee Increases Possible**

A recent ruling by the Cost of Living Council allows physicians to increase their fees by as much as five percent. However, in order to go up five percent the physician must not have raised his fees during calendar year 1972.

The original Economic Stabilization Program limited physician fee increases to two and one-half percent per year. The Council has ruled that this is accumulative and that a physician could raise his fee two and one-half percent for last year plus two and one-half percent for 1973, making a total of five percent.

While making his January 11th announcement, the President called for the abolishment of the Health Services Industry Committee which had advised the Price Commission on controls relating to the health sector. A new committee with members drawn from the Cost of Living Council and an advisory committee were established in its place.

Primary function of the new Health Services Committee will be to review and make "appropriate recommendations" concerning

changes in government programs that could hold down health care costs. It will be chaired by the Director of the Cost of Living Council and composed of the Chairman of the Council of Economic Advisers, the Director of the Office of Management and Budget and the Secretaries of Treasury and HEW.

The new Advisory Committee will be composed of "knowledgeable individuals outside the federal government." According to the White House announcement, the committee will advise the Cost of Living Council on operations of controls and changes in government programs "that could help alleviate the rise of health costs." The committee will also work to "mobilize insurance companies and other third party payers to use their influence to curb the rise of health costs."

An economics professor from Harvard, John T. Dunlop, PhD, has been chosen to be the new chairman of the Cost of Living Council. Four years ago Dunlop served as head of a task force charged by then President-Elect Nixon with assessing health policy problems that faced the new administration. Later he headed a committee that reviewed findings of the task force on prescription drugs and which suggested that Medicare cover outpatient drug costs.

Complete text of the AMA's letter to the President is as follows:

"The American Medical Association has applauded your administration's efforts to stabilize prices and wages for the economy. The association has supported the overall objectives of the Economic Stabilization Program and actively cooperated with the Cost of Living Council through the Health Services Industry Committee in the application of price controls on physician's fees.

"A look at the physician component of the consumer price index gives an example of the affect that 'voluntary compliance' can have in curbing inflation. As a result of this association's activities, physician's fees rose only 1.7 percent under Phase II. This constitutes one-third the rate of increases prior to the Economic Stabilization Program. In this respect, we have surpassed the original expectations of the Cost of Living Council, which called for halving the inflationary rate prior to Phase I.

"In view of our demonstrated success during the past year, you can imagine our dis-

may at the announcement of plans for Phase III. Although most of the economy is now expected to 'voluntarily' adhere to the general guidelines of the Cost of Living Council, the medical profession has been placed under mandatory regulations. Indeed, the medical profession has once again been singled out under special controls. The physicians of America will not accept this discriminatory treatment. This profession must not become the victim of efforts to curb inflation in the more expensive components of the health care industry, which due to their internal financial structures have been unable to decelerate increases in their prices.

"The record of the past year clearly demonstrates that physicians are able to effectively control their fees through voluntary action. The record of the past year is equally clear that physician's fees have not been an inflationary factor in health care costs. We, therefore, request that the medical profession be exempt from special regulations under Phase III, and respectfully request an early opportunity to visit with you on this and other matters of critical importance to the nation and the medical profession." □

## Legislative Committee Considering Numerous Bills

Within a matter of days after the opening of the 34th Oklahoma Legislature, a number of bills of interest to the medical profession had been introduced. All such legislation is considered by the OSMA's Legislative Committee chaired by R. Barton Carl, MD.

The committee has as its primary function the monitoring of all legislation affecting medicine and a creation of association positions on each such bill.

The following is a list of the bills pending before the Legislature that have been considered by the Legislative Committee:

### SENATE BILLS

**SB 002**-by Hargrave—Authorizes a judge of the district court to hold a hearing and take testimony relating to deaths that are suspicious, obscure or mysterious. *The committee is concerned that in its present form, this bill would reenact the old coroner sys-*



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*tem although that does not seem to be its intention. The committee is attempting to work out a compromise with all parties involved.*

**SB 114**-by Stansberry—Provides for an appeal mechanism to the State Board of Medical Examiners when a physician is dismissed or suspended from hospital staff privileges. *The committee is working with the author to draft an alternate proposal which would provide for an appeal to the State Board of Health. The alternate is acceptable to the author.*

**SB 139**-by Breckinridge—This is the abortion bill that was introduced last year to provide for abortions under certain conditions. It was reintroduced this year with changes. *Last year the committee opposed the bill and would object to some of its provisions at this time. However, in view of the recent Supreme Court decision regarding abortion, the committee has not taken an official position.*

**SR-9** by Miller *et al*—This resolution establishes a special committee to study the management of the University Hospital. It was passed by both the House and the Sen-

ate before the committee had an opportunity to even study it.

#### HOUSE BILLS

**HB 1022**-by Cole—Permits an injured employee covered by Workmen's Compensation to "... without the approval of the state industrial court obtain the services of another physician, surgeon, or chiropractor of his own choice ...". *The committee chose to oppose this bill.*

**HB 1032**-by Cole—This act would permit any person suffering damages from personal injury or death as a result of medical care rendered pursuant to the Workmen's Compensation Act to maintain an action against the responsible party or parties rendering such medical care. *Special note: At present the physician treating a person covered by Workmen's Compensation has a "halo of immunity" from malpractice action. This bill would remove that immunity.*

**HB1058**-by Miskelly *et al*—An appropriations bill setting aside \$100,000 to the Oklahoma Rural Medical Education Loan and Scholarship Fund. These monies are to be used to finance medical students who agree to practice in a rural area after completing their medical training. *The committee supports this act.*

**HB 1142**-by York—This bill amends the Medical Practice Act and gives the Board of Medical Examiners some additional authority in investigating and disciplining physicians who are guilty of "unprofessional conduct." *The committee is working with the author and the Board of Medical Examiners to reword some sections of the bill.*

Copies of any of the above mentioned bills are available from the association's headquarters, 601 N.W. Expressway, Oklahoma City, Oklahoma 73118. □

### First Aid Station Equipment Needed

Equipment donations are needed to finish supplying the OSMA's Legislative First Aid Station. The station is located on the fourth floor of the State Capitol Building, between the House of Representatives and the State Senate Chambers.

A number of pharmaceutical companies and medical supply houses have donated

drugs and disposable medical supplies. However, the association is in particular need of a blood pressure cuff, an oto-ophthalmoscope, and a laryngoscope. Anyone wishing to donate this equipment ... either used or secondhand ... is invited to send it to the OSMA at 601 N.W. Expressway, Oklahoma City, Oklahoma 73118 in care of Ed Kelsay. □

### Attend Myriad Medicine '73

The Oklahoma City Clinical Society and the Oklahoma Academy of Family Physicians will hold their first combined meeting March 29th, 30th, 31st, 1973 at the new Myriad Convention Center in Oklahoma City.

An outstanding program of postgraduate teaching has been arranged. This includes lectures, discussions and practical clinics by outstanding national speakers. Also planned is a special educational discussion for physicians and wives by Doctor Robert Taubman who is an authority on problems in medical marriages and who was written up in *Time Magazine* in November 1972. There will also be a special symposium on steroids and their use. Saturday morning will be devoted to the athlete and athletic injuries.

Specialty groups who also will be meeting are the: Oklahoma Society of Anesthesiologists, Oklahoma Academy of Physical Medicine, Nurses Association of the American College of OB-GYN (ACOG), Oklahoma Section; American Cancer Society (Oklahoma and Arkansas); Oklahoma State Nurses Association and Visiting Nurses Association.

Social functions will include an "Early Bird Party" on Wednesday evening, March 28, with a reception at the Myriad Center and dinner and show at the Gaslight Theater with the play "Four Posters" to be presented. Thursday evening will be the Oyster and "Keg" Party sponsored by Marion Laboratories, and Friday evening will be the annual banquet with our own Bud Wilkinson as guest speaker, and musical entertainment by the Browning Family.

Mark your calendar now, to join us in this very eventful meeting. For further information write: Mrs. Alma O'Donnell, Executive Secretary, Oklahoma City Clinical Society, 601 Northwest Expressway, Oklahoma City, Oklahoma 73118. □

## Physician Outstanding Young Man

An Oklahoma City pathologist, Perry A. Lambird, MD, has been named as the Oklahoma City Jaycee's 1972 Outstanding Young Man.

Doctor Lambird is the first physician to receive the award in its 30-year history. He was chosen out of a field of nearly 20 to receive the award, which is based on contributions to the community.

In accepting the award the doctor said, "I feel the award in some way is responsive to the contributions the medical profession has made to this state."

In addition to his medical activities, Doctor Lambird has served as President of the Associate Board of Directors of the Oklahoma City Symphony and as a member of the board of directors of the Historic Preservation, Inc., Westminster Day School, Oklahoma City Ballet and the Oklahoma City Opera Guild.

Doctor Lambird is a member of the Medical Arts Laboratory and has staff privileges at St. Anthony, Presbyterian and University Hospitals. He is a consultant pathologist for the state medical examiner and is a deputy medical examiner for the state.

In addition he is Clinical Assistant Professor of Pathology and Orthopedic Surgery at the University of Oklahoma Health Sciences Center.

At age 19 the doctor graduated Magna Cum Laude and Phi Beta Kappa from Stanford University. He received his medical degree from Johns Hopkins School of Medicine, Baltimore, Maryland in 1962. He completed his residency in pathology in 1969 at Johns Hopkins. □



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**Tulsa, Oklahoma**

**April 26th, 27th, 28th, 1973**

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## Scandinavian Adventure In OSMA Future

A fourteen-day Scandinavian Adventure holiday for members of the Oklahoma State Medical Association is scheduled to depart Oklahoma City July 26th.

The special Scandinavian Adventure will feature visits to Stockholm, Helsinki and Copenhagen. The price of \$868 includes chartered round trip jet transportation, deluxe hotels, two meals daily (American breakfast in the hotel and gourmet dinners at a choice of the finest restaurants in each city), tips, transfers and many other extras to make the trip more enjoyable.

A generous 70 pounds of baggage allowance has been made, more than adequate for shopping and golf clubs.

Sponsored by the Oklahoma State Medical Association through the INTRAV Organization, the Scandinavian Adventure will have absolutely no regimentation. Persons on the trip are free to go where they want, and do what they want, whenever they want to.

While a special escort will travel with the group throughout the trip, in Stockholm, Helsinki and Copenhagen there will be five personable hosts to assist in arranging sight-seeing, shopping, golfing, nightclubbing and other activities.

Special medical seminars will be conducted in each of the three major cities. At least five topics each will be presented in Stockholm, Helsinki and Copenhagen. In each seminar there will be two similar topics: One on the current health services in the country, and another on its medical education. The remainder of the topics in each city will be of general medical interest and will cover such things as asthma, ovarian cancer, hemorrhagic disorders, etc.

The Scandinavian medical seminar has been accepted for four hours of continuing education under the AMA's physician recognition award, category two.

All members of the OSMA were sent information on the Scandinavian Adventure in early February. Registration forms were provided in the literature. However, anyone wishing to register for the tour should contact the medical association's office in Oklahoma City.

The tour will depart Oklahoma City on July 26th via chartered World Airways



The Little Mermaid—perched on a rock at the edge of the sea near Copenhagen—symbolizes the OSMA's Scandinavian Adventure tour. Scheduled to depart Oklahoma City on July 26th, the tour will feature four days each in Stockholm, Helsinki and Copenhagen. A special overnight side trip is available to Leningrad.

Private Jet direct to Stockholm. The flight is completely first class service, including stretch-out, extra comfort seating, the finest food and complimentary cocktails and champagne.

The tour will stay in the new luxurious Sheraton Stockholm Hotel located in the very center of the town for four days.

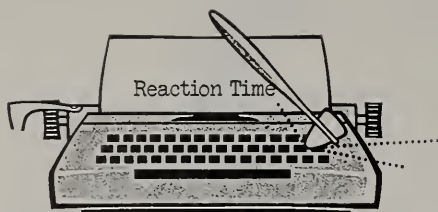
In addition to sight-seeing in the city itself, optional side trips are available to the fascinating Isle of Gotland to see the ancient walled city of Visby, or visit the Uppsala-Sigtuna lake country. An optional side trip to Oslo . . . Norway's capital . . . is also available.

After Stockholm the tour flies to the sparkling capital city of Finland, called the White City of the North, Helsinki. While staying in the Hesperia Hotel, individuals may relax in their room or in the luxury of a Finnish sauna bath.

A special overnight excursion to Leningrad in the USSR is available.

The last four days of the tour will be spent in Denmark's capital, and its largest city, Copenhagen. The Danes are genial hosts, and the Sheraton-Copenhagen Hotel is no exception.

The Little Mermaid is found in Copenhagen, perched on a rock, gazing out to sea. She aptly symbolizes the Copenhagen and Scandinavia of Hans Christian Anderson's childhood. □



December 28, 1972  
Stanley R. McCampbell, MD  
1211 North Shartel  
Oklahoma City, Oklahoma 73103

Dear Dr. McCampbell:

I read with interest in the December Journal of the Oklahoma State Medical Association your comments regarding politics and the American Dream. As you know, I was an unsuccessful candidate for Congress in the second district this year.

Although I ran on a Democratic ticket, I concur with practically every word of your treatise in support of our President. As you know, I tried in futility to present these same ideas to enough of the voters to get into a run-off.

It seems to me that we as doctors and members of the Medical Profession, and all other people who are in the medical field even in an ancillary manner, must share the blame for the continued election of public officials that will do nothing to accomplish any of the points of the American Dream that you mentioned.

This blame centers around the political apathy and self-centeredness of the average physician. You might be interested to know out of multiple requests, to the states almost 2,500 physicians, my total contributions came to around \$2,200, about \$.80 each on an average. Not only that, I received no support from OMPAC and was received by many of the doctors that I called upon in the district that I did not know, with much the same "I am too busy" attitude that we render detail men, salesmen, etc.

Please do not accept these remarks as sour grapes. These are simply observations that confirm to me that part of the socialistic medical welfare mess that we are in has actually been caused by our own profession. We cannot live on an island any longer. We must become involved actively both as individuals and with our money; when we think

that we can support a friend of medicine, do so. To me this is more important than to continue to try to create a track record of supporting winners, as OMPAC does, whether or not they may be friendly to medicine.

As you know in mid-campaign, I dropped my support of McGovern and after the primary threw my support to Dewey Bartlett. I am hopeful that I can be of some help in the future under his administration, if he should need me. . . .

I remain respectfully,  
W. Robert Collins, MD  
Muskogee Eye Clinic  
WRC/tr

cc: Editor, *The Journal*

## DEATHS

POLK FRY, MD  
1909-1972

Former Frederick physician, Polk Fry, MD, died in Fort Worth, Texas, December 24th, 1972. A native of Frederick, Doctor Fry was graduated from the University of Oklahoma College of Medicine in 1936. In 1938, he established his practice in Frederick where he remained until his retirement in 1971.

He was a brother of Powell Fry, MD, Stillwater physician, and the father of Robert Kirk Fry, MD, Oklahoma City.

ANDRE B. CARNEY, MD  
1889-1972

A prominent, Tulsa physician and surgeon, Andre B. Carney, MD, died December 28th, 1972. Born in Choctaw County, Alabama, Doctor Carney received his medical degree from New York University Medical College in 1922. Before moving to Tulsa, Doctor Carney practiced medicine in Fort Smith, Arkansas.

Active in many medical circles, Doctor Carney was a member of the American Society of Abdominal Surgeons, which he served as President. He was President and Chairman of the section on general surgery of the International College of Surgeons, a member of the Southern Medical Association and the American Cancer Society.

CLARENCE F. NEEDHAM, MD  
1889-1973

Clarence F. Needham, MD, who was a general practitioner in Ada, Oklahoma, for over 40 years, died January 15th, 1973, in Belleville, Illinois. Born in Anita, Iowa, Doctor Needham graduated from the University of Oklahoma College of Medicine in 1924. He was a Life Member of the Oklahoma State Medical Association.

JOHN H. CLYMER, MD  
1918-1973

Oklahoma City, general surgeon, John H. Clymer, MD, died January 25th, 1973. Born in El Reno, Oklahoma, Doctor Clymer received his medical degree from the University of Oklahoma College of Medicine in 1944, where he later became Associate Clinical Professor in the Department of Surgery.

LEO F. CAILEY, MD  
1896-1973

Retired, Oklahoma City ophthalmologist, Leo F. Cailey, MD, died January 22nd, 1973. A native of Cherryvale, Kansas, Doctor Cailey graduated from the University of Oklahoma College of Medicine in 1925, where he later served as Associate Professor in the Department of Ophthalmology.

In 1951, Doctor Cailey was presented a Life Membership by the Oklahoma State Medical Association. □

## Book Reviews

**HANDBOOK FOR THE ORTHOPAEDIC ASSISTANT.** By F. Richard Schneider, MD, Clinical Coordinator, Orthopaedic Assistant's Program, City College of San Francisco; Assistant Clinical Professor in Orthopaedics, University of California School of Medicine, San Francisco, California. First edition, cloth, 198 pp., with 177 illustrations. Saint Louis: The C. V. Mosby Company, 1972. \$10.75.

This is a very well set up book in hard

back with about 200 pages and 177 illustrations. The general format of the book is excellent. It is well indexed and the illustrations are very pertinent to the text. I am sure that anyone reviewing this book would find some things omitted that should have been included and other things included that might well have been omitted. However, the orthopaedic assistant will be presumed to have had considerable knowledge of anatomy and considerable general information about the human body. The chapter on Principles of Fracture Treatment I thought was unusually good and would make a handy reference. I have had this book reviewed by knowledgeable para-medical personnel and all agree that it is a very valuable book, timely and much needed. It gives a simplified version of the care of the orthopaedic patient which is easy to understand, whereas, to dig this information out of a current textbook or orthopaedic surgery would be time-consuming and perhaps too technical. Further information on any given subject is readily available if the technician or orthopaedic assistant wants more detailed information. I congratulate the author on taking the time to prepare this excellent handbook and I am sure it will be well received. *Don H. O'Donoghue, MD*

**CURRENT PEDIATRIC THERAPY**, edition 5. S. S. Gellis and B. M. Kagan, editors. W. B. Saunders Company, Philadelphia. 1971. 785 pp. \$25.00.

This is the fifth edition of this book which enjoys widespread popularity among physicians who deal with children. This edition is in some respects a significant improvement over previous ones because there has been a sharp reduction in the amount of information dealing with non-therapeutic areas. Previously the book was essentially a textbook of pediatrics with a therapeutic emphasis.

It continues to present a logically organized group of monographs on each organ system as well as separate sections concerning metabolic diseases, nutrition, infectious diseases, allergic diseases, accidents and neonatal disorders. The list of 390 contributors is an impressive one and there are over 50

new articles and 30 completely rewritten ones.

This book continues to occupy a valuable place. Perhaps its weakest point is the poor organization of the section entitled, "Roster of Drugs." *Harris D. Riley, Jr., MD*

**THE PHARMACOLOGICAL BASIS FOR THERAPEUTICS.** Edited by L. S. Goodman and A. Gilman. New York: McMillan. 1794 pages. \$25.00.

This book remains one of the most important in the medical library. Edited by the two original authors and brought up-to-date with the aid of 42 contributors, the fourth edition on the textbook of pharmacology, toxicology, and therapeutics is of great interest to all physicians. Not only have many new and important drugs come into use, but new situations have arisen in relationship to drugs. There is a thorough updating of every chapter with respect to the mechanism of action and rational use of the older therapeutic agents and the addition of important new drug entities.

The 30 years since the publication of the first edition has witnessed an enormous change in the content, status and function of pharmacology, its role in the bio-medical sciences and its impact on the clinical sciences and rational therapeutics. The fourth edition appears at a time when the above mentioned advances are continuing and when equally important the impact of pharmacology not only on the practice of medicine, but also on society itself is receiving increasing attention.

The philosophy and objectives of the earlier editions are continued throughout. Four of the objectives are: (1) the correlation of pharmacology with related medical sciences, (2) the reinterpretation of reactions and uses of drugs from the viewpoint of important advances in medicine, (3) the placing of emphasis on the application of pharmacodynamics to therapeutics and (4) the provision of critical ways of "thinking" (Continued on Page 90)

## PREScribing INFORMATION

### Antiminth (pyrantel pamoate) Oral Suspension

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

**Precautions.** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

**How Supplied.** Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

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Simple dosage with a  
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clinical studies\*

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prescription can treat the entire  
family

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## (pyrantel pamoate)

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ORAL SUSPENSION

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\*Data on file at Roerig. Please see prescribing information on facing page.

(Continued from Page 88)

about" drugs to help the reader evaluate promotional claims and published literature on new therapeutic agents.

The fourth edition of "The Pharmacological Basis for Therapeutics" is a classic and will prove invaluable to students in all health fields, as well as practitioners and investigators. *Harris D. Riley, Jr., MD* ☐

## Miscellaneous Advertisements

LOCUM TENENS wanted for busy general practice for June, July or August, 1973. Attractive financial arrangements. Please contact David A. Campbell, MD, 2733 West Britton Road, Oklahoma City, Oklahoma 73120.

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EXCELLENT OPPORTUNITY FOR GENERAL PRACTICE in nice community near Lake Eufaula. Privileges in modern 44-bed hospital. Space available for G.P. in clinic adjoining hospital that already has an abundant patient load. Can expect full-time practice in a short time, along with time-off coverage. Guaranteed starting salary — rapid chance of advancement — with capabilities of earning up to \$50,000.00 yearly. At present time, there are four doctors on staff, rotating, taking week-end and night calls. Located in an ideal community from

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OFFICE EQUIPMENT: Dictaphone, for dictating only, \$200.00; Medco-Sonalator, \$300.00; complete sets of surgical implements, including orthopedic and T & A sets. (Total package of instruments, \$375.00); thermofax, \$200.00; office equipment including examining tables, cabinets, executive chair set, desks, tables. Contact John E. Horn, MD, JH Bar Ranch, Route 1, Muskogee, Oklahoma 74401. Phone 918 682-5004.

FREE TO A RESPONSIBLE young physician; reception room, business office, two consultation rooms, three treatment rooms of furniture; X-ray; EKG; and other equipment, including surgical instruments, who will purchase, on a rent contract basis, the building containing this furniture. The building consists of a large reception room, business office, two consultation rooms, three treatment rooms, X-ray room and laboratory; central heating and air-conditioning, adequate parking (off street) and is across the street from the post office, on the main street of town, and one and one-half blocks from a 70-bed, open staff hospital. This building is carpeted throughout, with draperies at the windows, and the rooms are paneled in walnut. Terms for the building, \$400.00 per month for a period of 13 years plus maintenance. There are four other physicians in this community of over 10,000 who are willing to assist and cooperate. An orthopedist or a general surgeon would do well at this location. Contact: R. G. Obermiller, MD, 1501 Main, Woodward, Oklahoma 73801.

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*"The history of science, and in particular the history of medicine... is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."*

*—George Sarton, from "The History of Medicine Versus the History of Art"*

**Are combination drug products useful in treatment involving concomitant use of two or more drugs?**

**Opinion**

**Results of a questionnaire to 7,000 physicians:**

**62.9%**

**Believe combination drug products are useful.**

**13.8%**

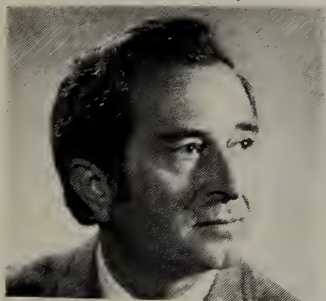
**Do not believe combination drug products are useful.**

# Are combination drug products useful in treatment involving concomitant use of two or more drugs?

## Opinion & Dialogue

### Doctor of Medicine

Louis Lasagna, M.D.  
Professor and Chairman  
Department of  
Pharmacology & Toxicology  
University of Rochester  
School of Medicine  
and Dentistry



Obviously, many drugs are given concomitantly. Whether it makes sense to combine medications in one preparation, be it capsule, tablet, or liquid, is a question that can be answered only by examining the advantages and disadvantages in the individual case.

Among the advantages is, first of all, convenience. The more medications that are taken concurrently and the more complicated the directions, the less likely the patient is to take medications accurately. From the standpoint of convenience and accuracy, and economy as well, you can make an important case for putting medications together in one preparation, as long as they are compatible.

By the same token, when you prescribe a properly tested and rational combination, you should have less worry about pharmaceutical or pharmacological compatibility — and about reasonable dosage ratios as well. Compatibility of the formulation should be demonstrated in the laboratory and clinic before the product is available for prescription—which is more than can usually be said for

the physician's own spontaneous creations. And, the dosage ratios employed in rational precompounded combinations are designed to meet the needs of substantial numbers of "typical" patients.

There is no doubt that many "atypical" patients are to be found, and for them the prefabricated combination must be rejected. But that hardly argues for eliminating rational combinations from the market. Think, for example, of the problems that would arise if the components of widely accepted combinations, like the oral contraceptives and the diuretic-antihypertensives, always had to be prescribed, purchased and ingested separately.

One disadvantage that comes to mind is some doctors' unawareness of the ingredients a given combination contains. For example, a doctor might know that a patient is allergic to aspirin but forget that a certain analgesic mixture, which he knows only by its trade name, contains aspirin. His prescription, then, causes considerable discomfort, to say the least. This problem is a function of physician education, rather than of combination therapy as such. Improving doctors' knowledge about all medicaments they prescribe is a problem that deserves tackling on its own.

Another accusation leveled at combination drugs is that they encourage sloppiness of diagnosis and treatment. In many cases, however, a combination may prove to be the most effective choice. A good ex-

ample of the usefulness of combinations appears in a recent article in the *Journal of Chronic Diseases* on the efficacy and side effects of an antihypertensive containing three ingredients, in which the track records of the combination drug and the individual ingredients were compared. Interestingly enough, whether the drugs were given individually or together, incidence and severity of side effects were the same. But blood pressure control was invariably better when the drugs were taken in one combination tablet than when they were taken separately (in "titratable" dosage) or in two or three different tablets.

Deciding which combinations constitute rational therapy obviously leads to a discussion of who is to determine which should be used and which should not. Realistically, I think combinations should be evaluated somewhat differently if they are old and established or new and untried.

In today's regulatory atmosphere, there is no possibility of a new combination being put on the market without a substantial amount of acceptable evidence in the form of controlled trials that show it to be safe and efficacious. On the other hand, I believe a different set of standards should apply to combination preparations that have been around for a long time. In other words, physician acceptance over a long period should be given some weight as evidence of the efficacy and safety of these drugs.

The FDA, however, does not seem to share this attitude. It often requires, for these older products, controlled trials that will monopolize the time of already overtired investiga-

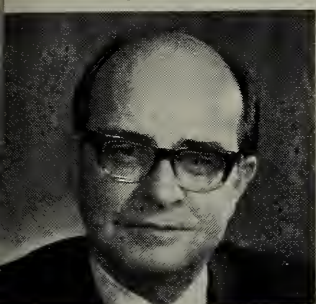
tors and cost a great deal of money. I wish we could agree on a "grandfather clause" approach to preparations that have been in use for a number of years and that have an apparently satisfactory track record.

For example, I think some of the antibiotic combinations that were taken off the market by the FDA performed quite well. I am thinking particularly of penicillin-streptomycin combinations that patients—especially surgical patients—were given in one injection. This made for less discomfort for the patient, less demand on nurses' time, and fewer opportunities for dosing errors. To take such a preparation off the market doesn't seem to be good medicine, unless actual usage showed a great deal of harm from the injections (rather than the proper use) of the combination.

The point that should be emphasized is that there are both rational and irrational combinations. The real question is, who should determine which is which? Obviously, the FDA must play a major role in making this determination. In fact, I don't think it can avoid taking the ultimate responsibility, but it should enlist the help of outside physicians and experts in assessing the evidence and in making the ultimate decision.

# Maker of Medicine

W. Clarke Wescoe, M.D.  
President  
Winthrop Laboratories



If two medications are used effectively to treat a certain condition, and it is known that they are compatible, it clearly is useful and convenient to provide them in one dosage form. It would make no sense, in fact it would be pedantic, to insist they always be prescribed separately. To avoid the appearance of pedantry, the "expert" decries the combination because it is a fixed dosage form. When the "expert" invokes the concept of fixed dosage form he obscures the fact that single-ingredient pharmaceutical preparations are also fixed dosage forms. By a singular semantic exercise he implies a pejorative meaning to the term "fixed dose" only when he uses it with respect to combinations. What is ignored is the simple fact that only in the rarest of circumstances does any physician attempt to titrate an exact therapeutic response in his patient. It is quite possible that some aches and pains will respond to 500 mg. of aspirin yet that fact does not militate against the usual dose being 650 mg.

The other semantic ploy often called into play is to describe a combination product as rational or irrational.

Take antibiotic mixtures, the source of much of the criticism generated against

combinations generally. Obviously, no one should be exposed willy-nilly to the potential side effects of two or three antibiotics when only one is needed. At the same time there are cases where it is prudent to prescribe more than one. The clinician is the judge in these circumstances, as he should be.

There is no clear definition of the word rational. Most persons, I suppose, would find it synonymous with reasonable, but in many circumstances it may best be defined as the opinion of those in power at the moment.

Other factors govern combination therapy, not the least of which has been its broad use by practicing physicians anxious to achieve convenience in prescribing, to reduce medication error, and to save money for their patients. Combinations clearly have met the test on all three counts.

I have been impressed by studies showing that the rate of error climbs markedly with the number of medications to be taken, even with sophisticated patients. When medically justified, therefore, this factor alone supports the logic of combination therapy.

The cost argument for combinations appears to be irrefutable. In 1971, R. A. Gosselin studied the 71 combination products (excluding oral contraceptives) among the 200 most prescribed drugs. The study found that if all 71 products were discontinued, and if each ingredient in these combinations were prescribed separately, the price of medicines to patients would jump by \$443.2 million on a national basis! At a time when the cost of medical care is under so much fire, it would be nonsensical to boost costs without clearly irre-

futable medical reasons.

The part played by government on this question, of course, is fundamental. The FDA should play a role in determining which combinations are reasonable. That role, as defined by law and regulation, is to ensure that any medication on the market is safe and effective in line with its label claims. Certainly combinations are entitled to as much consideration as single entities—neither more nor less. So long as the addition of one drug to another does not make either less safe, or less effective, so long as they are compatible in a formulation, we have a reasonable product. It makes no sense to recommend the use of two products for certain conditions and to deny their being combined in a single form. An unhappy side effect of the problem concerns the efficacy panel discussions of many products submitted for review. The term "effective, but" has been freely interpreted to mean "ineffective" in toto, regardless of the merit of the individual drugs. This interpretation has placed numerous useful combination products in needless jeopardy.

In reading the actual reports of the review panels, it seems clear that some of the ratings were based less on scientific research and clinical observation than on the "informed" opinions of the panelists. These "informed" opinions were accepted at face value, while

the "informed" opinions of others who had used the products were rejected. All of this put combination products into a sort of scientific never-never land.

It should be kept in mind by all, government as well as others involved in our health care system, that advances in therapy are seldom made in leaps and bounds but rather by small painstaking steps—and that some of these steps have resulted from research in combination drugs as well as with single entities. Given the near-infinite biologic variation in patient response, this is hardly surprising to clinicians. It should not be to regulatory agencies either.

In the end, the practicing physician is in the best position to decide if a particular combination makes sense. Such a decision should not be made exclusively by those whose responsibility for continuing clinical care is limited. Clinicians are the best judges of efficacy because the ultimate proof of any product's effectiveness is acceptance by physicians who have observed its actions in patients over time. The corollary statement may be made about over-the-counter medicines, which would not long survive if they failed to afford the relief the user anticipates. That the antihistamine in a "cold" remedy may not *always* be necessary is no reason to proscribe the combination generally.

## Opinion & Dialogue

What is your opinion, doctor?

We would welcome your comments.



The Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005



## MINOCIN® made the difference in just eight days.\*

### Clinical Data:

**Patient:** 47-year-old male.

**Diagnosis:** Severe pyoderma, left hand.

**Culture:** *Staphylococcus aureus*, coagulase positive and sensitive to MINOCIN.

**Temperature:** 102° F

**Therapy:** MINOCIN Minocycline HCl Capsules, 100 mg: 200 mg *stat*, 100 mg every 12 hours. Medication began 9/7/71. By fourth day, temperature was normal and pustular lesions considerably improved. Last dose taken 9/14/71.

**Concomitant therapy:** None.<sup>†</sup>



Semisynthetic

**MINOCIN®**  
**MINOCYCLINE HCl**

Capsules, 100 mg: 2 *stat*, 1 q 12 h.

**Indications:** For the treatment of susceptible infections; e.g., *E. coli*, *D. pneumoniae*. For full list of approved indications consult labeling.

**Contraindications:** Hypersensitivity to any tetracycline.

**Warnings:** The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower total doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has also been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. CNS side effects (lightheadedness, dizziness, vertigo) have been reported, may disappear during therapy, and always disappear rapidly when drug is discontinued. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while taking this drug. **Pregnancy:** In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. **Newborns, infants and children:** All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg./kg. every 6 hours, demonstrated a decrease

in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class.

**Precautions:** Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Because tetracyclines have been shown to depress plasma prothrombin activity, patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.

**Adverse Reaction:** GI: (with both oral and parenteral use): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. **Skin:** maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). **Renal toxicity:** rise in BUN, dose-related (see "Warnings"). **Hypersensitivity reactions:** urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. **Blood:** hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia. **CNS:** (see "Warnings.") When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

**NOTE: Concomitant therapy:** Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that absorption of MINOCIN is not notably influenced by foods and dairy products.

\*Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracyclines are not the drugs of choice in the treatment of any staphylococcal infection. <sup>†</sup>Case Report, Clinical Investigation Department, Lederle Laboratories.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965 12-20 436-2

## Fable From The Future

ONCE UPON a time not so long in the future, there was a Patient who developed influenza. He was 90 years old, had severe diabetes and had no one to care for him at home. Consequently his Physician thought it best to hospitalize him.

In those days, there had come into being a Public Law called 92-603 which provided for a thing called PSRO. In order to implement the grand provisions of the things the law provided for, there was, in every hospital, a full-time employee of the Federal Government. This person was summoned and, being a Bona Fide Bureaucrat, arrived on the scene somewhat tardy but thoroughly armed with five sets of quadruplicate forms and a large paperbound manual which was called "Handy Reference." It was not really handy as it was heavy and was awkward to use.

"What seems to be your problem here, doctor?" Bureaucrat asked.

"Well, Bureaucrat, we have an exceptional case here. It doesn't fit our computerized norms for the treatment of influenza in that there are a total of 250 Variance Value points which, according to the regulations, will allow hospitalization." Physician was carefully scanning and slowly turning the pages of his copy of Handy Reference.

"Well, I guess you're right, doctor," said Bureaucrat without glancing at Handy Reference or Patient, "but I don't believe he needs to be *here*. Surely he could be treated in one of our Class B Facilities."

"Oh, I think when PSRO considers all the factors involved . . ." argued Physician before Patient interrupted.

"Doctor, what is all this? What kind of facility are you trying to put me in and what is PSRO and how come I have so many points? How many points are fatal?" Patient asked, in anxious bewilderment.

"You mean you haven't heard about Public Law 92-603 and PSRO?" asked Physician, in amazement.

"You know," explained Bureaucrat. "It's the plan worked out by the government to

protect you against unnecessary health services that aren't up to federal standards. Also it protects you against being treated in an uneconomical facility. You know, places like this with all the fancy equipment and high-powered nurses and technicians."

"It's all in here," said Physician as he handed Patient the bound document titled Handy Reference. "This tells you about Class A, B, C, D and Z facilities, computerized norms for case treatment, hospital admission and allowable remuneration.

"That copy's a week old and has been superseded," said Bureaucrat with a somewhat supercilious air. "But it will give you a general idea. You can keep it."

Reaching for Handy Reference, Patient attempted but was unable to move it. As he began rifling the pages, he glared at Physician and said, "My god, doc! Do you mean to tell me that you got to treat me out of this book with PSRO and that Public Law dash nine two six sump'n? Why that's the damndest thing I've ever heard of in my life!" Turning to Bureaucrat then back to Physician, Patient continued heatedly, "How come none of you fellows never told me about this? I guess this proves you haven't been treating us properly and you have been charging us too much and squandering our money in fancy, highflautin hospitals and . . ." Being overcome with anger, resentment and fever, Patient fell back on bed.

After listening anxiously with a stethoscope on Patient's chest, Physician said, "Well, Bureaucrat, I think Patient has fainted. Shall we admit him here or send him over to the B Facility?"

"Well, at least he's calmed down," said Bureaucrat as he reached for and signed a quadruplicate form. "And now that he's unconscious, I can justify his admission here."

MORAL: Tell your patients about Public Law 92-603 and PSRO NOW! A real Bureaucrat might be less lenient. Remember, this is just a fable.

MRJ



Professional Services Review Organization (PSRO), a part of HR-1 passed by Congress in October, will potentially change the practice of medicine to a greater degree than anything that has happened since Hypocrates!

PSRO was designed to promote effective, efficient, and economic delivery of health care services of proper quality. This presents organized medicine with a classic false dilemma: 1. We PSRO ourselves, or 2. some other agency of the Feds will do it to us. Like every false dilemma, this leaves out the *third choice: total non-participation*, in which we refuse to be PSROed by anyone.

In any case, it is far too important an issue to be decided by the leadership alone since it involves intimately the practice and future of every doctor in the United States. We are therefore determined to inform our members and to hold a referendum to determine if we will boycott PSRO, or to activate an existing foundation, so that if we must be PSROed, then we can do it ourselves. Unfortunately, Big Brother will be looking over our shoulders and sending new stringent regulations down from the hallowed halls of H.E.W.

Everyone agrees that PSRO is a bad law, is punitive to doctors, is a prerequisite leading directly to socialized medicine. It is unworkable, and could ultimately destroy private practice of medicine and organized medicine.

In addition, it cannot possibly accomplish its objectives of "promoting the effective, efficient, and economical delivery of health care services of proper quality." When it fails the Federal expertise of placing blame elsewhere, will point the finger of guilt at doctors and not at the fact the PSRO is a bad unworkable law from the outset.

On the other hand, PSRO is the Federal law, and will have all the power of the Federal Government behind it. And, most important, if we do not do PSRO, then it is likely that PSRO would be assigned to some agency that would enjoy doing it to us. But, *the third choice, No one can perform PSRO if they don't have any doctor participants!*

Your OSMA leadership would insist that each member be fully informed about PSRO. On April 1st, a referendum will be held to determine the direction your OSMA will go.

We recommend:

1. Read everything you can on PSRO.
2. Read *Provisions Relating to Medicare* page 50-68\*.
3. Encourage discussion with your colleagues on PSRO.
4. Arrange and attend County Medical Society meetings on PSRO. Every doctor will be invited to participate in a regional meeting on PSRO.
5. Do not waste your vote on the referendum in April by delay, default, or because you were uncertain of the issues.

The time is now near at hand which will determine if American doctors will be free men or slaves!

\*Available from OSMA or AMA.

*S.R. McCampbell, MD*

## Coordinated Care For Children With Cancer

RUTHANN MONK, MD  
G. BENNETT HUMPHREY, MD, PhD  
STEPHEN E. ACKER, MD  
DONALD B. HALVERSTADT, MD  
EDWIN IDE SMITH, MD  
PHILIP G. JOSEPH, MD  
THURMAN SHULLER, MD  
CASEY TRUETT, MD

*In the not too distant past the diagnosis of cancer in a child was considered a death knell. This is no longer true.*

AS LITTLE as three decades ago, physicians regarded most cancer in children as incurable. An attitude of hopelessness prevailed. Little or nothing, they felt, could be done except to make the child as comfortable as possible for the short time of life remaining to him.

Currently, this bleak outlook is fading as therapy becomes more effective—particularly coordinated treatment programs involving the combined use of surgery, radiotherapy, and chemotherapy or combinations of the three. While cancer remains the primary medical cause of death among children, survival times are lengthening and apparent cures are reported with increasing frequency. Leukemia, of course, is still considered virtually incurable, although a number of patients have survived without evidence of re-

currence long enough to be considered disease-free.<sup>1</sup> The results for some solid tumors are more promising, due in many cases to the development of effective chemotherapy used in conjunction with surgery and/or radiotherapy.

Wilms' tumor, for example, is one of the most common abdominal tumors in early life. Formerly this abdominal neoplasm was associated with a high mortality. Around the turn of the century, surgery alone resulted in a 20% survival rate,<sup>2a</sup> and irradiation alone, 15% survival.<sup>2b</sup> When irradiation and surgery were combined, in the thirties and forties, the survival rate rose to 40%.<sup>3</sup> Since World War II, the combined regimen of chemotherapy, irradiation, and surgery has dramatically improved the survival statistics to over 85%.<sup>4</sup> In one reported series, apparent cures were obtained in 47 of 53 (89%) children who had no demonstrable metastases on hospital admission, and in 18 of 31 (58%) with metastases.<sup>5</sup>

Unfortunately, the picture has been less bright for children with some of the other solid tumors, such as neuroblastoma, rhabdomyosarcoma, and lymphosarcoma. But the discipline of pediatric oncology is making steady strides and one cannot help but feel optimistic for the future, as more effective treatment forms evolve and are made available to afflicted children.

A collaborative effort between physicians throughout the State of Oklahoma and the Pediatric Hematology-Oncology Service of Children's Memorial Hospital has resulted in a very rewarding experience and has provided improved patient care. Presented below are three children with solid tumors who have responded extremely well to a coordinated treatment program. One had lymphosarcoma; the second, rhabdomyosar-

From the Department of Pediatrics, Division of Pediatric Surgery, Division of Pediatric Urology, Department of Radiological Sciences, and The Children's Memorial Hospital, University of Oklahoma Health Sciences Center, Post Office Box 26901, Oklahoma City, Oklahoma 73190.

Supported in part by grant RR-62 from the General Clinical Research Center Program of the Division of Research Resources of NIH, Division HEW Grant #RIOCA 11233 and RIOCA 11343; a gift from F. C. Love of Kerr-McGee Corp.; and The Junior Hospitality Club, Inc.

coma; and the third, neuroblastoma.

#### CASE REPORTS

##### *Case No 1*

A 10-year-old white boy, in good health until he became ill while visiting relatives, developed swelling of his fingers, knees and ankles accompanied by fever, weight loss and lethargy. The boy was later seen by his private physician, who found an abdominal mass. An exploratory laparotomy revealed an inoperable mass and liver metastases. The patient was referred to Children's Memorial Hospital (from McAlester) for further treatment. When we saw him he ap-

peared as a small, thin, bedridden child who looked chronically ill. He had a distended abdomen, generalized abdominal tenderness, and marked hepatomegaly. A firm mass about six inches wide was palpated across the lower abdomen. Microscopic examination of the biopsy specimens taken at the time of surgery showed a small-cell, poorly differentiated lymphosarcoma. Bone marrow examination showed no definitely malignant cells, and a bone survey revealed no metastatic lesions.

A chemotherapeutic regimen was begun that included cyclophosphamide (Cytoxan®), vincristine (Oncovin®), and prednisone (Deltasone®). He was returned to the care of his private physician who continued the

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*Ruthann Monk, MD, was graduated from the University of Oklahoma College of Medicine in 1968, where she is now a resident and visiting lecturer in the Department of Pediatrics.*

*G. Bennett Humphrey, MD, graduated from the University of Chicago, The School of Medicine in 1960. He is presently Associate Professor of Pediatrics at the University of Oklahoma Health Sciences Center. His medical affiliations include the American Society of Clinical Oncology, the American Association for Cancer Education, the Association for Cancer Research, the Southwest Section of the American Society for Hematology and the American Academy of Pediatrics. In addition, he is a Principal Investigator of the Southwest Cancer Chemotherapy Study Group.*

*Stephen E. Acker, MD, received his medical degree from Tulane University School of Medicine in 1965. He is now Assistant Professor of the Department of Radiological Sciences at the University of Oklahoma Health Sciences Center. He holds memberships in the Radiological Society of North America, the Society of Nuclear Medicine and the American Society of Therapeutic Radiologists.*

*Donald B. Halverstadt, MD, is a 1960 graduate of Harvard Medical School and is certified by the American Board of Urology. He is presently Professor of Urology and Associate Professor of Pediatrics at the University of Oklahoma Health Sciences Center. He is a member of the American Academy*

*of Pediatrics, the American College of Surgeons, the American Urological Association and the Society for Pediatric Urology.*

*A 1948 graduate of Johns Hopkins University School of Medicine, Edwin Ide Smith, MD, has been certified by the National Board of Medical Examiners and the American Board of Surgery. He is Professor of Surgery, Chief of the Division of Pediatric Surgery and Associate Professor of Pediatrics at the University of Oklahoma Health Sciences Center. Among his medical affiliations are the American Academy of Pediatrics (Surgical Section), the American Association for the Surgery of Trauma and the American Burn Association.*

*Philip G. Joseph, MD, received his medical degree from the University of Oklahoma College of Medicine in 1940. He is presently in general practice in Sapulpa, Oklahoma.*

*Since his graduation from the University of Arkansas School of Medicine in 1939, Thurman Shuller, MD, has been certified by the American Board of Pediatrics. He is a member of the Academy of Pediatrics and has practiced his specialty in McAlester for 25 years.*

*Casey Truett, MD, was graduated from the University of Oklahoma College of Medicine in 1969 and is now in private practice in Norman, Oklahoma. His medical affiliations include the American Academy of Family Physicians, an associate membership in the American College of Surgeons and the Southern Medical Association.*

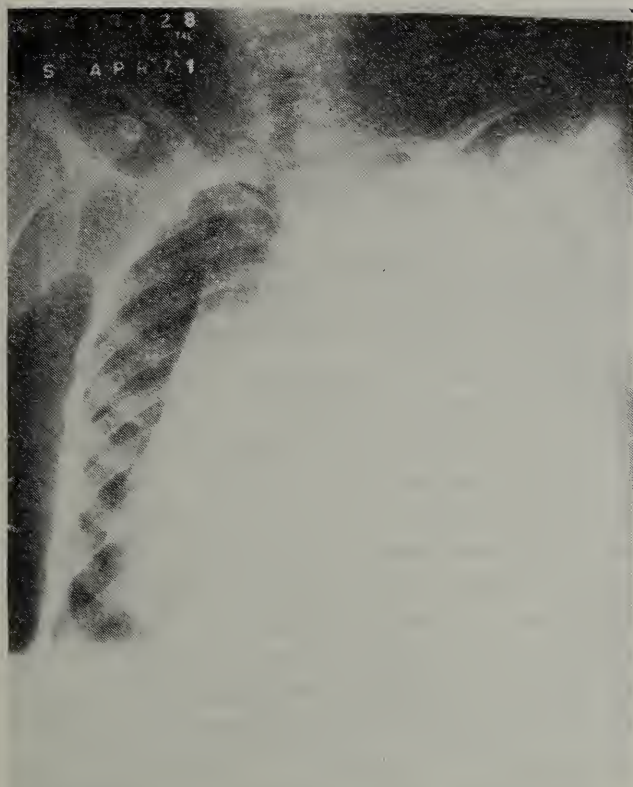


Fig 1 (Case No 2)

Chest film taken at the time of patient's first admission to Children's Memorial Hospital prior to institution of therapy. It shows opacification of the left hemithorax with deviation of the trachea and heart to the right.

chemotherapy. Two months after diagnosis, when the boy returned to the Pediatric Hematology-Oncology Outpatient Clinic at Children's Memorial Hospital for a follow-up visit, he was free of pain, fever and bleeding and had been essentially asymptomatic. He had returned to full activity and the abdominal mass was no longer palpable. One-and-one-half months later, he was admitted to this hospital as an inpatient for re-evaluation. During the interval since his first follow-up visit, he had remained completely asymptomatic. Physical findings were completely normal except for hepatomegaly and moderate alopecia, secondary to the chemotherapy. A bone marrow survey showed no evidence of metastasis. An inferior vena cavagram and intravenous pyelogram were normal, as were isotope scans of the liver and spleen. At exploratory laparotomy during hospitalization there was no evidence of an abdominal mass or metastatic lesions. The spleen was removed during surgery along with biopsy specimens of the liver. Histologic studies were negative for malignancy.



Fig 2 (Case No 2)

Chest film demonstrating the response following completion of palliative radiation therapy and seven weeks of chemotherapy. It also shows a marked reduction in tumor size.

The boy was returned to the care of his private physician and was to be continued on chemotherapy.

*Comment:* This case represents a dramatic response to chemotherapy of an extremely malignant tumor. The patient progressed from a preterminal state to a normal life with no evidence of tumor, within a span of three months.

#### Case No 2

A 12-year-old Indian boy went to the W. W. Hastings Indian Health Service Hospital in Tahlequah for treatment of a "head cold" and was found to have massive left pleural effusion and masses in his left calf, left testicle, and left groin. The mass in the calf was removed at that institution and multiple thoracenteses were done. The histologic diagnosis was alveolar cell rhabdomyosarcoma. In collaboration with Doctors Marshall and Self of Tulsa he was referred to Children's Memorial Hospital.

He was admitted to the hospital with severe left shoulder and side pain and progressive respiratory distress. On examina-

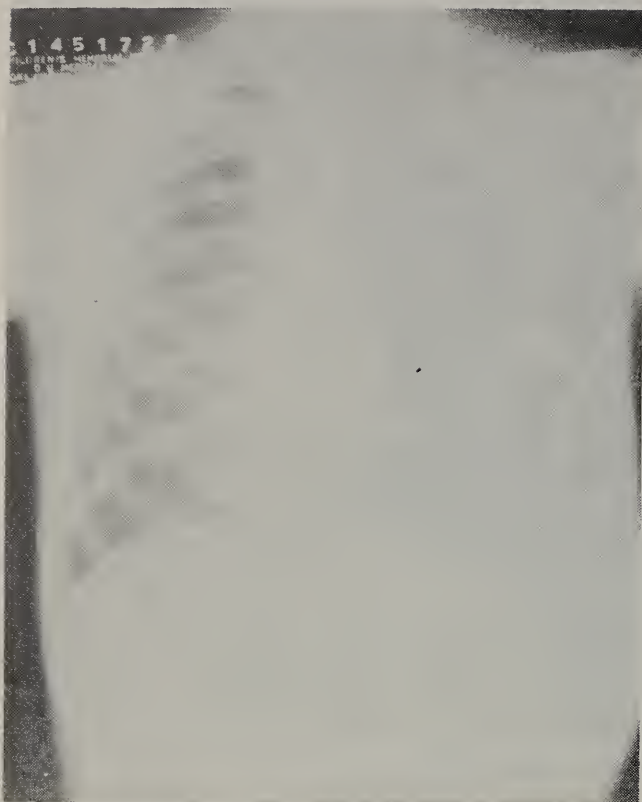


Fig 3 (Case No 2)

Chest film taken two months after chemotherapy had been stopped. It shows re-opacification of the left lung field and what was felt to be a large amount of pleural fluid within the left hemithorax.

tion, he appeared emaciated and chronically ill and was in acute respiratory distress, with marked dyspnea and orthopnea. The anteroposterior chest diameter was increased and the sternum protruded. Respiratory rate was 50/min; there was dullness to percussion over the entire left chest and decreased breath sounds on the left. The mediastinum was shifted to the right, and the apical impulse was felt to the right of the sternum. The liver edge was palpated 10-12 cm below the right costal margin. The left testis was enlarged and hard. The patient had 4+ pitting pedal edema, along with marked wasting and muscle weakness. A chest film showed complete opacification of his left hemithorax which was thought to be caused by the tumor mass because no fluid could be removed on several attempted thoracenteses.

One day after admission, chemotherapy with vincristine, actinomycin-D (Dactinomycin®), and cyclophosphamide was begun. Four days after admission the patient began

receiving radiation treatments of the mediastinum, which were soon followed by a shift of the mediastinum back to the left. Some aeration of the left upper lung field became apparent, and the boy was feeling much better generally, with only minimal respiratory distress. He was discharged from the hospital and continued receiving chemotherapy as an outpatient.

Three weeks later, when the patient was readmitted to complete his radiation therapy, he had no respiratory distress and no pain. However, dullness to percussion and decreased breath sounds were still present over the left lung base. The liver and spleen were no longer enlarged, but the left testicle remained hard. After completion of radiation therapy, he was discharged from the hospital and has been followed in the outpatient clinic by one of us since then. He has also been followed by his private physician, who has continued to supervise chemotherapy.

Two months after this patient's tumor was first considered to be untreatable, he was basically asymptomatic, without pain, and enjoying full activity, including horseback

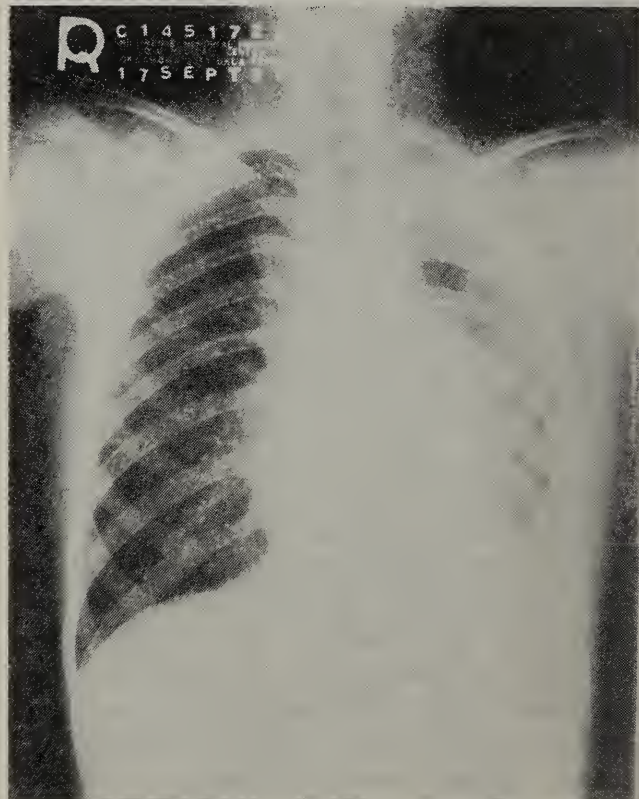


Fig 4 (Case No 2)

Chest film taken four weeks after reinstitution of chemotherapy shows a decrease in pleural effusion. The parenchymal and mediastinal masses have not changed appreciably.

riding. He still had residual changes on chest x-ray and a mild Horner's syndrome. Chemotherapy was stopped a month later, and he continued to do well for a month and a half. He then began to have chest pain, and a recurrent pleural effusion was observed on an x-ray film of the chest. He again responded to chemotherapy and currently is asymptomatic. The patient will continue to receive chemotherapy and will be followed by his private physician.

*Comment:* Rhabdomyosarcoma, the most common malignant neoplasm of soft tissues in children, is generally associated with a poor prognosis. For the embryonal type, survival is approximately 10-12 months after diagnosis; for the alveolar type, it is 30 months.<sup>6</sup> The patient described above with advanced disease, responded to the combination of radiotherapy and chemotherapy to the extent that he became virtually asymptomatic and able to resume most of his normal activities.

#### Case No 3

An 11-year-old white boy began having intermittent left hip pain which gradually worsened until he could no longer walk. He was hospitalized in Sapulpa and found to have lesions in his left femur. These were biopsied and diagnosed as either neuroblastoma or Ewing's sarcoma. He was also found to have osteolytic lesions in his left pelvis. He developed a neurogenic bladder which necessitated an indwelling urinary catheter, and he was unable to have a spon-

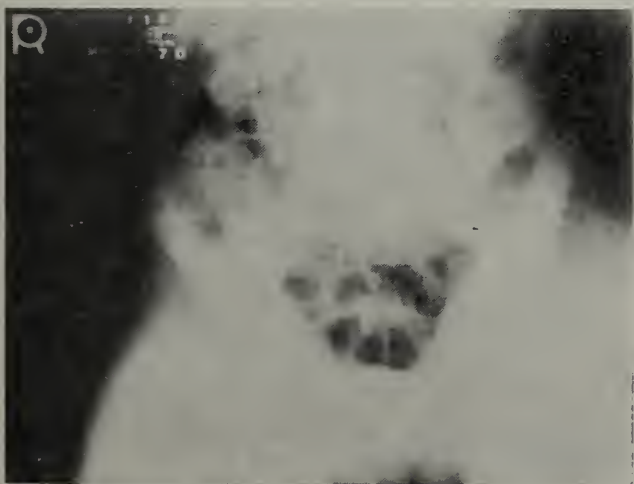


Fig 5 (Case No 3)

Pelvic x-ray taken at the time of the patient's first admission to Children's Memorial Hospital demonstrates the mottled bone destruction involving the entire pelvis.

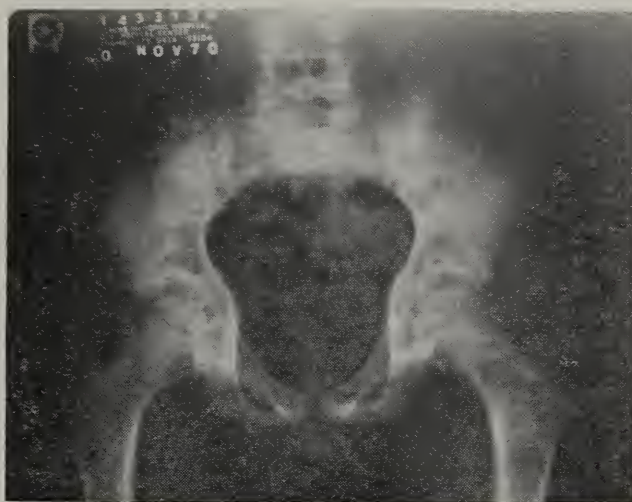


Fig 6 (Case No 3)

X-ray showing the appearance of the pelvic lesions after the patient had received six months of chemotherapy. It demonstrates some sclerosis in association with the lytic component.

taneous bowel movement. He also could not move his lower extremities.

On admission to Children's Memorial Hospital two months after the onset of his symptoms, he was having right knee pain and left arm pain, as well as the continuing left hip and thigh pain. On examination, he appeared to be a chronically ill, cachectic child with marked voluntary abdominal guarding and neurological deficits in the lower extremities. Bone marrow examination showed massive infiltration of the bone marrow with highly undifferentiated tumor cells, many of which were clumped and formed pseudorosettes. Bone survey showed mottled destruction of numerous bony structures including the entire pelvis, ribs, scapula, proximal portion of the left tibia, proximal humeral metaphyses bilaterally, and lower thoracic vertebra, with collapse of the mid- and upper-thoracic vertebra. The diagnosis of neuroblastoma was made, and the patient received palliative radiation therapy to both knees and left hip to relieve pain. Daily chemotherapy was begun, consisting of orally administered cyclophosphamide. After a urinary tract infection was treated, a suprapubic cystotomy was performed because of the persisting neurogenic bladder. Symptomatic improvement ensued, and the patient was discharged, pain-free, three weeks after admission, to continue receiving chemotherapy and physical therapy as an outpatient under the care of his regular physician.

During this follow-up period although he experienced some difficulty with nausea and vomiting secondary to the cyclophosphamide, he did begin to walk again, two-and-one-half months after therapy had been initiated. A month later, neurologic function had returned to the extent that he could walk without assistance, and the suprapubic catheter could be removed because bladder function had returned.

The patient was admitted for re-evaluation six months after therapy had been started. At that time, the liver and spleen isotope scans, chest x-ray, intravenous pyelogram, bone marrow examination, and urinary catcholamine excretion were all normal. He did have an elevated serum glutamic oxaloacetic transaminase (SGOT). The bone survey films, which four months earlier had improved somewhat over the initial films, continued to show diffuse involvement with what was judged to be progression of the spinal lesions, but the other lesions were thought to be static. The patient was admitted again after eight months of chemotherapy for a "second-look" operation. No tumor was found, and a retroperitoneal lymph node biopsy was interpreted as lymphoid tissue without evidence of metastatic disease.

After receiving chemotherapy for one year, this patient continues to do well, with only a slight limp secondary to a left heel cord contracture. Otherwise, he is asymptomatic, attends school, enjoys good health, and is, as of this time, in clinical remission.

*Comment:* Neuroblastomas, the most common tumors of the sympathetic system in children, are generally associated with a poor prognosis. If the disease is discovered in infancy or early childhood, the mortality is roughly 70%. In children over five years of age, the mortality is almost 100%.<sup>7</sup> However, Gross *et al* report that the survival rate for all children treated for neuroblastoma at the Boston Children's Center from 1950 to 1957 rose to 36.7%, despite the fact that the proportion of patients presenting with advanced disease had increased. They suggested that this improvement was due to the use of adjuvant chemotherapy.<sup>8</sup> The

patient described above may, because of the extent of his metastases, still succumb to his disease sometime in the future, but chemotherapy has produced a remarkable clinical improvement.

#### DISCUSSION

These three cases were chosen not because they represent cures, or even the average response, for some children do not respond. Rather, they were chosen because they illustrate what can be accomplished by an integrated therapeutic approach. In each case, after the diagnosis was established, the child would have been treated by conventional methods had it not been for the intervention of a physician consulted by the family. Through referral, these three children came to the Pediatric Hematology-Oncology Service of Children's Memorial Hospital for evaluation.

The concepts of therapy for children with cancer have changed. Physicians are moving away from the traditional uncoordinated sequential approach to treatment, *ie*, first surgery, then possibly radiotherapy, and finally, when metastases become evident, chemotherapy. Indeed, survival statistics show that children with tumors respond best to coordinated care, delivered by a team of specialists working together in a medical center.<sup>9</sup> There, complete facilities are available to establish the diagnosis accurately and assess the extent of tumor involvement. The surgeon, radiotherapist, and chemotherapist can then consider the case in conference and propose the best treatment program for that particular child. After therapy has been instituted, the necessary supportive care is available to the child; a factor of particular importance when chemotherapeutic agents are being administered as the complications must be attended to by someone skilled in their management.

In addition, pediatric oncology centers have access to information on the most recent developments in cancer therapy—information which often does not appear in the medical literature until a year or more later. Cancer chemotherapists from medical centers in the Southwest, for example, can keep abreast of advances in their field through the Southwest Cancer Chemother-

apy Study Group. Through regular meetings and printed communications, they are able to keep informed of the results of drug studies long before these studies are completed, evaluated, and published. The benefits are then passed on to children throughout the medical community by the joint participation in drug-study programs of physicians in private practice and those in oncology centers.

If further progress is to be made in pediatric oncology, clinicians and research workers must collaborate closely in evaluating new treatment techniques. In a large pediatric oncology center, which keeps in close touch with similar centers around the country, the number of cases available for evaluation is larger, the results are, therefore, more reliable statistically and trends become obvious sooner. But another critical factor is a reciprocal relationship between physicians in private practice and the staff of the pediatric oncology center. Only by working together can they do everything possible for children with malignant disease. It is the child's physician who first makes the diagnosis, and upon whom the family depends to make the best medical facilities available to them. The pediatric oncology center stands by to serve the physician in this capacity.

In a special communication to the *Journal of the American Medical Association*, James F. Holland of the Roswell Park Memorial Institute has discussed the chemotherapeutic cures that have probably been obtained in some children with leukemia, pointing out that there is much advantage in exploiting the full potential of the therapies already at hand. He emphasizes, however, that, "The best organizational framework for success appears to me to be a cooperative venture between the patient's own physician and his closest investigational center. . . . In a major city, such a center might be only 100 blocks away and nonetheless, because of patterns of medical practice, as remote as if it were across the ocean."<sup>10</sup>

#### SUMMARY

The pediatrician, family physician, surgeon, radiotherapist, chemotherapist, and

pathologist should conduct an immediate study of the child with cancer—along with any other specialist whose opinion might be helpful in determining the nature of the malignant disease and the ideal form of treatment. The best treatment program should be rapidly and jointly conceived. Subsequent therapy should be modified as indicated by the child's response to the program and supportive care should be continuously available. Optional methods should be taken into consideration far in advance of need. Throughout the period of diagnosis and therapy, continuous communication should be maintained with the child's physician. After the initial evaluation has been completed, the oncology team and the physician will be cooperating closely in the treatment program. Since it is the child's physician who will be administering chemotherapy over an extended period, collaboration in this area, between the chemotherapist and the private physician, is particularly important. Their mutual evaluation of the child's problems and responses will determine the drugs and dosages best suited to his needs. □

#### ACKNOWLEDGEMENT

We wish to thank Ms Barbara G. Cox, Director of Editorial Services, Learning Research Center for her editorial assistance in the preparation of this manuscript.

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# Physician Evaluation of A Computer-Based Automated Medical History System

WILLIAM J. OSHER, MD

*A computer-based medical history system can be used to achieve many objectives.*

*It appears that helping or partially replacing the attending physician is the most difficult one to attain.*

**MEDICAL HISTORY** information traditionally has been acquired by direct interview of the patient by the physician. The value of other methods of doing this has been recognized and has found expression in such procedures as the use of paramedical personnel to question patients, the use of self-administered questionnaires, which may or may not be computer processed,<sup>1</sup> and the use of peripheral computer input devices which acquire data directly from the patient for processing.<sup>2, 3</sup>

Motivations for this type of activity generally fall in three classes:

1) Economic and Social. Some evidence based on cost-accounting methods suggests the automation of medical records could result in some savings of costs. A more pressing objective, however, appears to be that of saving of physician's time and presumably conserving both money and scarce talent.

2) Improvement of Care. Some information, especially under certain circum-

stances, appears to be elicited better by impersonal methods.<sup>3</sup> In addition, the value of information could diminish quite rapidly with time so that methods by which information can be processed and displayed quite rapidly will, under many circumstances, have distinct advantages.

3) The Necessity of Immediate Information for Specific Purposes. It has often been necessary to go to the original source of the information to obtain specific items. Thus, it is not uncommon for a patient to be asked for his age or other personal data several times by departments of the hospital. This problem has been attacked by information systems in which the data are entered once and made available to all interested parties through a computer-based communication system.

The possibility of developing an automated computer-processed medical history was investigated at Hillcrest Medical Center, Tulsa. The motive was primarily that of providing a service to the physician, but an additional consideration was that of increasing the value of medical history information by making it available promptly and in a standard format. Another consideration was that of possibly bringing about some cost-saving over the current manual method of handling medical history information. Accordingly, the staff was polled by means of a questionnaire. The results of this questionnaire, shown in Table 1, indicated a generally favorable response to the idea of such a venture. The decision was then made to

Table 1  
IF A COMPUTER-PROCESSED HISTORY TAKEN BY  
A TECHNICIAN WERE PLACED ON THE CHART  
WITHIN 12 HOURS WOULD YOU

	Yes	No
Use It?	53 (84%)	10
Cut down your dictation?	32 (58%)	23
Consider it a significant improvement in patient care?	46 (73%)	17
Consider it a physician convenience and time-saver?	51 (84%)	11

undertake the project. It is probably of significance to note in view of subsequent development that a somewhat smaller percentage of the respondents indicated that they would cut down the amount of their dictation if this system were available.

#### THE AUTOMATED HISTORY SYSTEM

The steps involved in a data acquisition, processing and storage system are shown in Figure 1. With respect to medical history information the physician acts as a data acquisition element. Data conversion by the physician, of course, is done by his sensory and motor organs. During the process of data acquisition the physician carries out data processing which, in turn, affects his subsequent data acquisition process. Eventually, under the traditional system, the elicited information is recorded, most commonly by an electronic device. An alternative, of course, is for the physician to convert the information into handwriting. In the more common procedure, however, the information is communicated to a center where it is converted into a typewritten report which in turn finds its way to the clinical chart and the storage facility. The automated history system contemplated at Hillcrest involved a history technician, a specially

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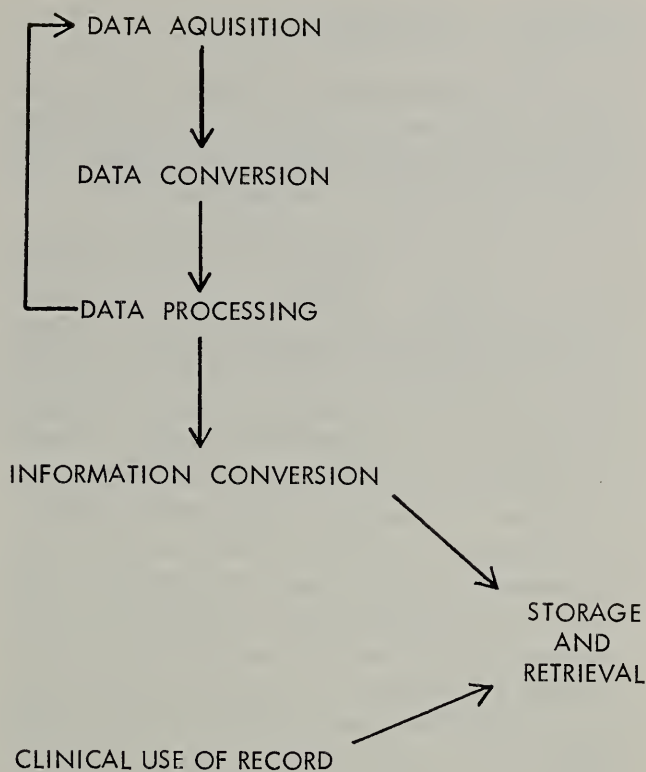


Fig 1

trained individual who would acquire data by means of a questionnaire and a limited amount of interviewing. The slightly processed data would be converted into a form for computer processing. The computer would carry out the main processing and produce a printed copy for the patient's chart. The physician would have the option of revising it, adding to it, or duplicating it, in so far as he saw fit.

A system such as this would offer several optional benefits, notably that of compact storage and rapid retrieval. Additionally, it would be possible to carry out statistical analyses of patient responses more easily.

In implementing the history system, a medical history technician was trained to carry out the administration of the questionnaire and the associated data conversion (card-punching). A FORTRAN program was written by which the computer processing was carried out. A small questionnaire for data acquisition was originally devised and this was gradually enlarged as needed. Initially, a group of 12 user-physicians was enlisted, who provided patients to serve as subjects for the medical history procedure. Over a period of time, a user-group of 35 physicians was developed and the questionnaire with associated program reached a

stage of development in which it was possible to turn out histories which from the standpoint of information, contained a reasonably large number of entries.

OPERATION OF THE SYSTEM

Under ordinary circumstances a medical history technician could distribute, process, retrieve, and convert approximately 12 questionnaires in an eight-hour period. Under favorable circumstances a much higher volume than this could be achieved. Computer processing of a patient history required approximately one minute of computer time on an IBM 360/30 system. Generally it was possible within the environment of the hospital to start, process and deliver the batch of patient histories within an eight-hour period.

As was noted previously, a user-group of 35 physicians was developed. A user, in this context, is defined as a person who granted permission for the procedure to be done on his patient and who had it done at least once. It should be pointed out in addition, that the medical histories generated by the system were observed and used by consultants, and other physicians.

EVALUATION OF SYSTEM

After 210 histories in the final version had been carried out over a period of about six weeks, an evaluation of the system was done. A total of 209 individuals were polled by the questionnaire, which was coded to show if the respondents were users of the system. There was a 60 per cent response among the users, 39 per cent response among the non-users and a 42.5 per cent response of the whole group. The population which was surveyed included all staff categories and was selected on the basis that members of the group had at least 12 admissions during the previous year and/or more than 4 admissions per month during the current year.

Table 2 lists the questions and the overall responses. Generally, the questions could be grouped in four categories as follows:

- 1) Those which would evaluate the as-

Table 2  
OVERALL RESPONSES TO SURVEY OF STAFF

	No	Yes	
1. Have you had an opportunity to examine the Automated (Computer-printed) Medical Histories at Hillcrest?	52	34	No Op- inion
2. Do you think that the Automated Histories:			
A. Save physician time	14	19	3
B. Provide useful information	3	25	5
C. Help improve office records	9	24	5
D. Can be made into a complete history by relatively little effort from the attending physician	14	18	3
E. Are useful to consultants, nurses, and paramedical personnel	4	27	5
F. Help to solve record-keeping problems	9	20	8
G. Are, in most instances, worth the time and effort by the patient to fill out the questionnaires	6	25	4
H. Would benefit from further development	3	29	4
I. Should be discontinued	25	4	5
3. Would you, if asked:			
A. Permit these histories to be done on your patient	6	59	7
B. Want these histories to be done on your patient	13	30	17

sistance rendered to the physician and the time saved by him;

2) Those which would evaluate the quality of the information provided or the improvement of quality of information on the medical record;

3) Those which would reflect an opinion of the quality of the system as a whole;

4) Those which would evaluate, from the physician's standpoint, the benefit to the patient.

The results, as indicated by the responses expressing definite opinions, are shown in Table 3. The responses were generally favorable but were least favorable on the matter of assistance given to the physician by the automated history.

Responses of the users tended to be more favorable than those of the non-users. It should be noted, however, that users were a selected group in that they gave permission for their patients to be used as subjects. The physician-users, when originally approached, uniformly consented to the participation of their patients but there was almost certainly some bias in selecting them. One

Table 3  
USERS AND NON-USERS WITH OPINIONS  
Per Cent  
'Yes'

	Users	Non-Users
Save physician time	59	56
Can be made into a complete history with relatively little effort	60	53
Help office records	77	69
Help solve record keeping problems	77	63
Provide useful information to physicians	93	87
Useful to consultants, nurses, and para- medical personnel	93	81
In most instances worth the patient's efforts	80	81
Would benefit from further development	87	93
Should be discontinued	15	13
Permit these histories to be done on your patients	93	90
Want these histories to be done on your patients	92	61

user, after some experience with the system, asked spontaneously that the procedure be discontinued.

#### DISCUSSION

The findings of the survey suggest that among the objectives set for an automated history system some are more easily attainable than others. It is not surprising that the attempt to replace the functions currently carried out by the physician appeared to meet with the least success in this effort. Other investigators<sup>2,4</sup> have indicated that questionnaire and automated methods are more acceptable to patients than to physicians.

From the standpoint of the present level of development of computer science, software systems are not available which would duplicate or replace the mental processes of a trained physician in taking a history. Likewise, presently available data acquisition systems do not approach the physician's faculties for communication and interaction with the patient. It is probably fair to say then that the physician's history-taking function cannot, except for certain restricted situations, be replaced and to attempt to do so would be placing an unrealistic objective on a computer-based automated system.

Within some restrictions there are special properties of a computer-based system which can be exploited. These are notably speed, ease of storage and retrieval, and ease of analysis of data. One strategy of use of such

a system, then, would be to define the types of medical history information which require least the physician's special data acquisition and processing faculties and require most the special properties inherent in a computer system.

The determination of which part of the medical history would benefit most from such a trade-off probably requires further investigation. It is probable that this would include factual, numerically-oriented, and relatively invariant information such as is found in the menstrual and reproductive history, past history, allergic history and family history. Other types of information, of course, should be included in an automated history with, however, the expectations of a less advantageous trade-off.

The high degree of acceptability of automated histories in furthering record-keeping functions, assisting nurses and paramedical personnel was not unexpected. The function fulfilled in this regard probably could be more fully carried out with an effective communication system. The value of the computer-based communication system, formally called a Hospital Information System, has been recognized and there are such systems in varying stages of development. From the results of this survey, it appears that the information obtained could serve as a satisfactory input into such a system.

A large body of opinion indicated that the system would benefit from further development but, at the same time, should not be discontinued. This was interpreted to mean that the system was currently useful and held additional promise.

The user-physicians in particular indicated a strong desire to have the automated history procedure carried out on their patients. It was in this response that the greatest disparity between user and non-user physicians was found. This probably reflects the selected nature of the user group but it also appears that members of this group were not disenchanted by their experiences with the system. Generally, a high degree of patient acceptance to the procedure was noted and this could have been a factor.

#### SUMMARY

A computer-based automated medical history system is described. After a period of

operation, an attempt was made to evaluate the achievements of the system based on a survey of physicians. The responses were generally favorable with regard to the general quality of the system, the quality of information, and to the desire to provide the service for their patients. The least favorable responses were obtained with respect to the assistance given to the physician

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March 28, 1973	VALVULAR HEART DISEASE	W. H. Oehlert, MD
April 4, 1973	ATHEROSCLEROTIC HEART DISEASE CARDIOMYOPATHIES	S. D. Shappell, MD
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May 16, 1973	ALLERGY	James Wells, MD

## Cystinosis

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**DOCTOR RILEY:** The term Fanconi syndrome is given to a group of disorders involving multiple functional disturbances of the proximal tubule of the kidney including defects in the reabsorption of glucose, amino acids and phosphates. The name Fanconi syndrome, was originally given to the idiopathic form of the disorder. However, cystinosis was soon found to be the most common cause of the "primary" form in children. Cystinosis will be the topic for rounds today. Doctor Gene Osburn will present the patient.

**DOCTOR OSBURN:** The case for discussion is that of a 20-month-old white girl who was referred to Children's Memorial Hospital, University of Oklahoma Health Sciences Center, because of polyuria and polydipsia. She had been seen by her private

physician four days prior to admission because of an illness characterized by fever, vomiting and dehydration. During hospitalization she was found to have hyponatremia, hypokalemia, metabolic acidosis and polyuria. After administration of antibiotics and rehydration with intravenous fluids, she was referred here for further evaluation.

The girl had been considered well until approximately two months prior to admission when her parents noted that she began having decreased exercise tolerance and muscle weakness. These symptoms had progressed so that she could walk only a few steps without having to rest. During this same period of time it was noted that the child had begun preferring soda crackers and potato chips to cookies or candy. She also began experiencing photophobia, and frequently asked to use her mother's sun glasses when exposed to bright lights. About three weeks prior to admission she began asking for water very frequently during the day, and awoke several times during the night to request additional water. The polydipsia was accompanied by polyuria.

There was no history of pica, exposure to toxins, heavy metals, or insecticides. She had not received any tetracycline preparations. There was no family history of similar illnesses.

On examination, her temperature was 37.5°C, pulse 112/min, BP 90/40 mm Hg, weight 9.7 kg. and height 87.5 cm. She was an alert, pale, irritable child who displayed

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## Cystinosis / OSBURN, et al.

aversion to bright lights. If inadvertently exposed to bright lights, tearing and photophobia were apparent. Her muscle tone appeared to be generally reduced and she was quite weak; the physical findings were otherwise unremarkable.

The laboratory data revealed a hemoglobin of 11.0 gm/100 ml, hematocrit 29.5%, a white blood cell count of 10,700/cu mm, and a normal differential count. The urine specific gravity was 1.004, pH 7.0, a trace reaction for glucose was present on dip testing, and the urine was normal on microscopic examination. A urine culture produced *Proteus morganii* (an indwelling catheter had been removed upon arrival at this hospital). The blood urea nitrogen was 28 mg/100 ml, creatinine 0.9 mg/100 ml, sodium 135 mEq/l, potassium 4.0 mEq/l, chloride 117 mEq/l and CO<sub>2</sub> content 14 mEq/l. The blood uric acid was 1.8 mg/100 ml, serum calcium 4.6 mEq/l and phosphorus 3.4 mg/100 ml. The two hour post-prandial blood glucose was 135 mg/100 ml. Electrophoresis of the serum protein showed a total protein of 6.9 gm/100 ml; albumin, 4.4 gm/100 ml; Alpha-1, 0.3; Alpha-2, 0.8; Beta, 0.9 and Gamma, 0.5 gm/100 ml. The serum alkaline phosphatase was 55 King-Armstrong units. The quantitative 24-hour-urine-protein excretion was 364 mg, and the urinary glucose excretion was 97 mg/100 ml of urine (markedly elevated). The urinary sodium excretion was 50 mEq/24 hr, urinary potassium 47 mEq/24 hr. The 24-hour-urine-uric acid was 167 mg. The urine osmolality was 135 mOsm/Kg.

A chest x-ray was normal, as were plain roentgenograms of the abdomen. X-ray films of the hands, wrists and knees were normal. A drip infusion pyelogram produced only faint visualization of the kidneys.

Aspirated bone marrow contained frequent single, and occasional clusters, of rectangular crystals. Multiple crystals were seen on slit lamp examination of the corneas. A percutaneous renal biopsy was performed and the findings will be discussed by Doctor Woodruff.

Following confirmation of the diagnosis of cystinosis, the child was given a mixture of sodium and potassium citrate. The urinary tract infection was treated with nitro-

furantoin. Urine cultures were negative after 48 hours of treatment. She was discharged after nine days in the hospital. Follow-up examination in the outpatient clinic has revealed marked increase in muscle strength and increased activity since beginning therapy with the alkalinizing solution.

**DOCTOR RILEY:** Thank you. Doctor Woodruff will present the pathological findings.

**DOCTOR WOODRUFF:** Portions of the renal tissue submitted to the pathology laboratory had been fixed in Carnoy's solution, absolute alcohol, and gluteraldehyde. For light- and electron-microscopy, routine processing of thin sections of tissue was performed. In addition, several unstained slides of the alcohol-fixed-tissue of 7 micra thickness were cut for polarization microscopy. Numerous rectangular and hexagonal crystals consistent with cystine were identified within these thicker sections.

By light-microscopy, the most striking changes were present in the renal tubules. All segments of most tubules showed spotty degenerative changes, although these changes were more prominent in the proximal tubules. Tubular cells were frequently granular, eosinophilic, and swollen; and their borders were often fragmented. Some had been sloughed into tubular lumina. There were focal areas of flattened, apparently regenerating epithelium. Proteinaceous and cellular casts were abundant. (Figure 1)

Electron-microscopy confirmed the light-microscopic findings. Numerous cystine crystals were present in the interstitium and there was an increase in interstitial fibrous tissue. (Figure 2) Amorphous casts containing cellular organelles filled many tubular lumina. Most tubular epithelial cells were abnormal. These contained vacuoles and swollen mitochondria; occasional intra-lysosomal cystine crystals were present. (Figure 3) Only minimal changes were present in the glomeruli. These consisted of terminal arborization of the epithelial foot processes, minimal fusion of the foot processes, and rarely, a multinucleated glomerular epithelial cell.

Our diagnosis, then, is cystinosis. The child had apparently had biopsies rather early in the clinical course, as evidenced by the nearly normal glomeruli, the only mildly

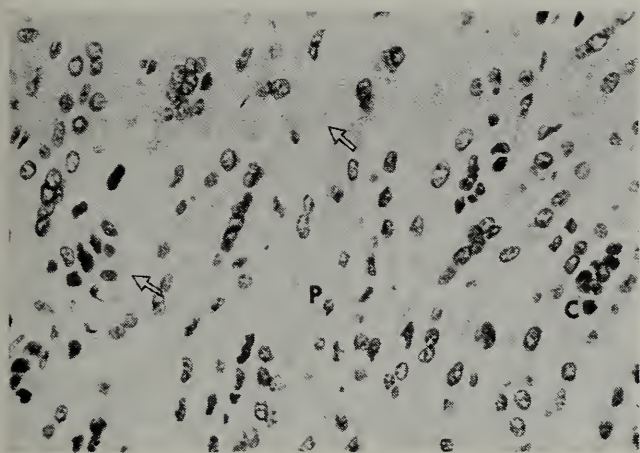


Figure 1. Numerous tubules containing protein (P) or cellular (C) casts. The tubular epithelium is frequently thin or exhibits sloughing (arrows). Hematoxylin and eosin x 160.

advanced interstitial fibrosis, and the presence of a few remaining normal tubules. Eventually, of course, the kidney will show progressive fibrosis and crystal accumulation accompanied by further tubular and glomerular damage.

**DOCTOR RILEY:** Doctor Madrigal, Fellow in Pediatric Nephrology, will discuss the genetic aspects of this disorder.

**DOCTOR MADRIGAL:** The early recognition of the familial occurrence of cystinosis suggested a hereditary basis of transmission. Since affected relatives are always siblings, it was soon appreciated that other generations were not affected. The frequency of occurrence was also found to be increased among the descendants of consanguineous marriages, which also suggested an autosomal recessive pattern of inheritance. Bickel and Harris<sup>1</sup> studied the relatives of eight known cystinotic children; they obtained a complete history from all relatives, and urine samples from nearly all relatives for paper chromatography and Benedict's test. A history of parental consanguinity was present in one of the eight families. Five of nineteen siblings of the probandi were either affected or probably affected by the disease. These authors considered the genetic pattern typical of an autosomal recessive type of inheritance.

Reports of a benign type of cystinosis among several siblings who manifested abnormal tissue deposits of cystine but did not undergo renal deterioration, suggested that two different genotypes might be present.

The true incidence of cystinosis is un-

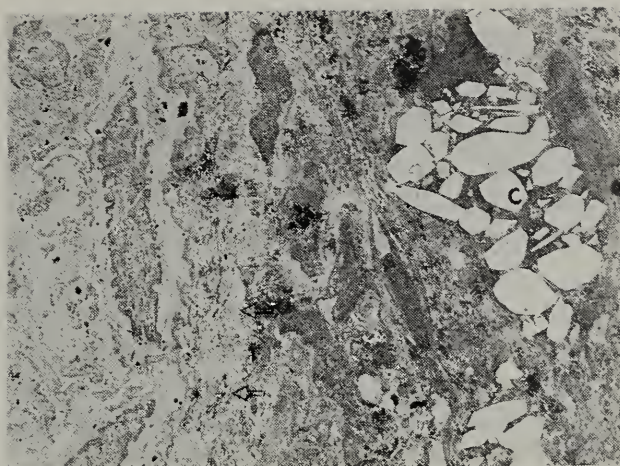


Figure 2. Numerous angular cystine crystals (C) in the interstitium. The surrounding parenchyma contains an abundance of collagen fibers (arrows). Lead citrate and uranyl acetate x 6670.

known. Bickel and Harris<sup>1</sup> estimated a minimal incidence of between 1:65,000 to 1:20,000, using as a reference the total population (332,000) under 15 years of age of the three counties from which five of their eight cases had been found. However, theirs is only a rough estimate since some patients undoubtedly die at an early age and are never properly diagnosed.

Based on the presumption that cystinosis is inherited as an autosomal recessive disease, for purposes of genetic counseling we could assume parents who are carriers will have a 25 percent chance of having a cystinotic child. There is no sex predilection. Grandchildren and the following generations will very likely be free of the disease unless a consanguineous marriage occurs, in which case the chances of having an affected child will be tremendously increased, at least in contrast with the general population.

**DOCTOR RILEY:** The clinical and other aspects will be reviewed by Doctor Wenzl.

**DOCTOR WENZL:** The Fanconi syndrome refers to the disordered renal tubular function which occurs in cystinosis and in other disease states. The term is generally (and loosely) applied to patients who have renal glucosuria, hypophosphatemia and aminoaciduria — in other words — proximal renal tubular dysfunction. Cystinosis is but one cause of the Fanconi syndrome, but probably the most studied of all the varied causes. I must also emphasize that cystinosis and cystinuria are completely separate and unrelated conditions. The latter condition is a

genetically determined tubular defect characterized by increased renal excretion of the four dibasic amino acids; cystine, ornithine, arginine, and lysine.

Infants with cystinosis appear normal at birth, and as a rule, do not have any discernable abnormalities during the first few months of life. Sometime between six months and two years of age, and very rarely as late as five to six years of age, symptoms appear. Early symptoms include polyuria, polydipsia, refusal of food, vomiting, dehydration, constipation and fever. Growth failure rapidly becomes evident, and over a period of years there may be severe dwarfing. Affected children are weak, irritable and ill tempered, and drink large quantities of water or salty liquids, if the latter are available. With the onset of generalized renal tubular dysfunction including hypophosphatemia, hypokalemia, metabolic acidosis, generalized aminoaciduria and glucosuria, there is gradual development of a vitamin D resistant rickets. Rachitic bony deformities and bone pain may be severe. Cystine crystals accumulate in the cornea and retina, and cause photophobia. There may be marked aversion to light and tearing of the eyes when exposed to bright lights, as was exhibited in this child. Glucosuria may be fairly marked, and rarely may be mistaken for diabetes mellitus. However, these children have normal or, not infrequently, lowered blood sugars. If the child is potassium depleted, challenge with an oral or intravenous glucose load may cause a rapid shift of remaining potassium ions from the extracellular fluid into the cells. This shift may precipitate a fatal cardiac arrhythmia. Glucose tolerance tests are contraindicated, due to the danger of hypokalemic-induced arrhythmias.

Almost all children with cystinosis show some degree of defective pigmentation, resulting in blond hair and pallor out of proportion to the mild anemia that is almost invariably present. Growth failure is generally severe, and may be due to several mechanisms including rickets, azotemia, metabolic disturbances and acquired hypothyroidism.<sup>2</sup> The course of the disease is progressive, and most children die with

chronic renal failure well before the second decade of life. To date, no treatment, other than renal transplantation, has been successful in ameliorating disease or prolonging life.

#### HISTOLOGIC ASPECTS

Histopathologically, the disease is characterized by deposits of cystine crystals within peripheral leukocytes and other tissues. Somatic cell involvement includes the cornea and retina, bone marrow, reticuloendothelial cells, especially of the spleen, the Kupffer cells of the liver, and the renal tubular and interstitial cells. These crystalline accumulations enlarge and are associated with progressive cellular damage and destruction which is especially marked in the renal tubular cells. There is progressive deterioration of tubular, and secondarily, of glomerular function. At autopsy, the kidneys are small and characteristically show atrophic and shortened segments of the proximal renal tubule—the so called “swan neck” deformity.

#### BIOCHEMICAL CONSIDERATIONS

To understand the pathophysiology of cystinosis, we must review the biochemistry of cystine. Cystine plays several roles in cellular metabolism. Cellular systems readily reduce the disulfide bond to form cysteine, and it is this molecule, rather than the disulfide cystine, that is used in protein biosynthesis. Until recently, it seemed reasonable to suppose that a high concentration of cystine in the plasma might be the cause of the cystine deposits in cystinosis. After being ingested by macrophages, the crystals could then be carried to various sites within the reticuloendothelial system. However, this theory has not been borne out by recent studies. The cystine content of plasma of cystinotic children is the same as that of matched controls.<sup>3</sup> Furthermore, to reach the saturation point of plasma, it is necessary to achieve a concentration of approximately fifty times these values. Cystine crystals could not possibly form from extracellular fluid. In fact, prolonged contact with such a fluid should result in gradual dissolution of pre-formed crystals.

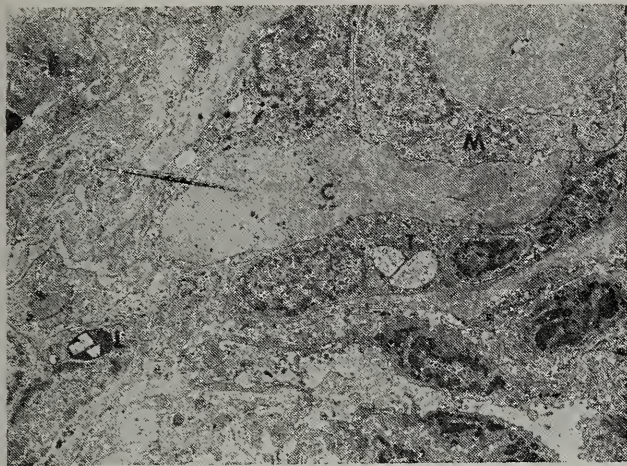


Figure 3. A tubular cast (C) containing cell organelles is surrounded by flattened tubular epithelial cells (T). The tubular epithelial cells contain large vacuoles and swollen mitochondria (M). One epithelial cell contains lysosomal crystalline cystine (L). Lead citrate and uranyl acetate x 5290.

Schneider and co-workers<sup>3</sup> recently showed that in cystinotic children, the mean intracellular cystine content of leukocytes and fibroblasts grown in tissue culture are 80 and 100 times normal, respectively. Heterozygotes show modest increases in cystine concentration in both cell types. They theorized that cystine is compartmentalized in the granular fraction within affected cells. This compartmentalized cystine is not available for cell metabolism, since affected fibroblasts already containing 100 times normal cystine would not grow in a cystine-free culture medium. This increased cystine within the cells presumably causes intracellular crystallization, and the cells eventually die. Most crystals seen on histological examination are extracellular; it is unknown if all these originated within affected cells.

#### TREATMENT

The treatment of these children has been very unsatisfactory. Symptomatic treatment includes replacement of these ions which are being wasted in the urine. A modified Albright's solution (consisting of sodium and potassium citrate and citric acid) is useful in replacing the sodium, potassium and bicarbonate ions which are being lost. The rickets and hypophosphatemia may be treated with vitamin D, or its active metabolite, 25-Hydroxycholecalciferol. These replacement measures give good symptomatic relief for a time, but are only palliative.

In attempts to reverse, or at least arrest, the progressive renal damage, different therapeutic approaches have been tried. Cystine-free diets have been utilized, and on these diets it is possible to reduce the plasma cystine levels to about one-third of normal. However, the intracellular cystine content of diet-treated children remained high, or actually increased, and the crystals continued to form within the cells. There were apparently no beneficial effects of a cystine-free diet. D-Penicillamine has been utilized to chelate cystine and render it more soluble. No benefit was found to be consistently associated with this treatment.

Various other modalities of therapy, including strong reducing agents such as tocopherol and cysteinamine, have also been given to reduce insoluble cystine to cysteine. These agents have similarly failed to benefit affected children.

In considering treatment, we must be aware of the recent reports of rare cases of so called "adult type" cystinosis. These adults have crystalline cystine deposits in the reticulo-endothelial system, bone marrow, and cornea, but do not develop crystals within their kidneys. These patients apparently have a normal life span, suggesting that improvement or amelioration of the renal disease would be associated with survival of children with the generalized form of the disease.

The failure of all forms of treatment to date, and the presence of adults with non-renal cystine deposits are compatible with the concept that the basic cause of cystinosis is defective intra-cellular compartmentalization of cystine. Any successful form of treatment would be one which would release cystine from its intracellular position. Until this is possible, one other approach must be considered. Since the primary defect leading to renal failure in cystinosis appears to be a genetically determined defect of the intracellular environment, cells without this genetic defect transplanted into the body of a child with cystinosis should not accumulate cystine crystals. Therefore, a cystinotic child should be as good a candidate for renal transplantation as any other child with chronic renal failure. The immunological and technical problems of renal transplantation of these dwarfed children are formidable.

able, but to date several have been tried with some early success.<sup>4</sup> Only time will tell if an early good result is permanent, or if we are only observing the natural history of the disease, with eventual recurrence of crystallization and destruction of the transplanted kidneys. □

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## Relative Efficacy

*When the government decides what drug should be prescribed, is the patient better served?*

IN THE FALL of 1971, several officials of the Food and Drug Administration began stating that drug manufacturers should provide information on the comparative usefulness of their medications in the treatment of specific conditions. Such "relative efficacy" data they said should be made part of the prescribing information supplied to physicians in drug product labeling.

To persons familiar with the history of the Food, Drug, and Cosmetic Act, the statements from FDA were far from novel. Indeed, the matter had been thoroughly discussed a decade before, when Congress was in the process of enacting the 1962 Amendments to the Act.

At that time, Secretary of Health, Education, and Welfare, Abraham Ribicoff, stated unequivocally that those who had expressed concern that the new law might be used to permit the Federal Government to make relative efficacy judgments had "no basis for such apprehensions." The proposed amend-

ments, he stressed, "would merely require a showing that the new drug described in the application is safe for use and is effective in use, under conditions prescribed, recommended or suggested, in the labeling thereof. This would not require a showing of relatively greater efficacy than that of other drugs. It would merely require that a drug claimed to be effective for a particular purpose had been demonstrated by sound scientific procedures to be effective for that purpose. In short, it must live up to the claims made for it."<sup>1</sup>

When asked specifically if FDA wanted the power to decide relative efficacy, Secretary Ribicoff answered, "We do not seek it. We do not want it. And my testimony indicated we do not intend to pass on it. . . . We do not want to pass on relative efficacy. We do not want to say that drug A is better than drug B or B is greater than C. We are not looking for that at all, and we do not think it is necessary."

Colorado Senator John A. Carroll pursued the matter still further, noting: "you know, some of the doctors have testified that they themselves do not know that drugs operate differently on different people." Mr. Ribicoff agreed, "Absolutely correct. . . . We would not and do not intend and do not want to pass on relative efficacy. This is no power we seek and no power we desire."<sup>2</sup>

Prepared by the Pharmaceutical Manufacturers Association, Washington, D.C.

It would be difficult to express a more clearcut denial of any intention to act to determine relative efficacy than that of the former HEW Secretary.

Yet it appears that a change in the Department's stated position is intended by some at FDA, apparently on the unsupportable grounds that drug labeling, which does not indicate the product's relative position on a therapeutic scale, is not fully informative, or is somehow false or misleading.

In order to follow that reasoning, one must assume that a prescribing priority system can be clearly established, and, if so, that the Federal Government should be the judging agency.

And that is the crux of the matter.

The question of whether relative efficacy *should* be judged by the government is preceded by the question of whether it *can* be accurately determined. For some drugs, a consensus of expert opinion has been reached. In these cases, the less desirable drug has either vanished (bromides for anxiety, mercurials for diuresis), or has shrunk to prescribing levels justified by the advantages it retains (veratrum for hypertension, sulfonamides for infection). Results of this sort do not require government intervention. On the contrary, it may well be that attempts to impose consensus by fiat rather than by scientific and professional interaction would have had a counterproductive effect.

That leaves many areas of therapy and many groups of drugs for which a consensus has not been reached. Can the government line up, for example, all of the drugs in use against high blood pressure, and meaningfully arrange them in order of efficacy? If so, the physician's task could be simplified immensely.

But the answer to this question is *no*.

A number of controlled studies have failed to show any significant difference in efficacy between the major antihypertensive drugs.<sup>3</sup> Yet, while the experts in the field and the prescribing physicians may be at odds not one seems to claim that the major antihypertensive drugs now available are indistinguishable with respect to efficacy or usefulness.

While informed experts decline to make

arbitrary judgments about the order in which particular drug products should be used, legislation is now pending (S. 2812, 92nd Congress) that would prevent the marketing of any drug not proven to be better than those already available. Had this bill been in effect when the first thiazide diuretics reached the market, it seems likely that only a handful would be available. Researchers, encouraged to proceed even if their discoveries were only modest, found more than a dozen such products, offering the physician a broad range of activity to meet his patient's needs. And, the availability of these alternatives has doubtless been a factor in the reduction—by about 15% at wholesale—in the price of the average diuretic.

It is thus impossible to justify the relative efficacy requirement from an economic point of view, let alone a medical one.

Still, some FDA employees are ready to decide such issues. According to the *Washington Post* of October 24, 1971, "some [FDA] scientists say that the diuretic market is saturated. 'We need another diuretic like a hole in the head' one FDA scientist said."

The question asks itself: Do the American people want FDA deciding when the last diuretic has been discovered, or instead do they wish to see further research leading to improved diuretics encouraged?

In this connection, it is noteworthy that early tests of a drug often fail to uncover some of its best advantages. For example:

- + The early research on dimenhydrinate was directed toward its antihistaminic properties; only late in the program was another of its characteristics—its usefulness against motion sickness—noticed;

- + The first research using the phenothiazines was in sedation; the drugs' cardinal value in psychoses came to clinicians' attention later;

- + Again, the value of isoproterenol in shock, of mafenide acetate in burns, and of lidocaine in cardiac arrhythmia, were not recognized for years after their widespread use for other, less important medical indications.

Had FDA taken the shortsighted position then that one or two good drugs for each therapeutic need should suffice, the drugs just mentioned might never have been mar-

keted; FDA could have said, in each case, that still another antihistamine, another sedative, one more cardiac stimulant, yet another topical antibacterial, and another local anesthetic—was not needed.

Because FDA did not make such arguments when these drugs were before them for approval, hundreds of thousands of patients have benefited enormously, in many cases to the extent of recovering the chance to live.

Similarly, there is a difference of medical opinion on the value of antihistamines, corticosteroids and sympathomimetic agents against allergy, with no clearcut consensus on the issue. A lack of unanimity also exists with respect to the therapy of peptic ulcer, where anticholinergics and antacids are used, and in various musculoskeletal conditions, where some advocate muscle relaxants and others order only phenobarbital, much depends on the particular patient.

In such cases, FDA traditionally has followed the lawfully required and prudent course of letting the relative merits of the drug be found through experience, once the general questions of safety and efficacy have been answered. The National Academy of Sciences/National Research Council's 1969 Drug Efficacy Study commented on the point:

"The final arbiter of the value of a drug is the consensus of the experience of critical physicians in its use in the practice of medicine over a period of years. Approval of a new drug for release to the market is only a license to seek this experience."

That process has been responsible for the large array of steroids of value in contraception, for example, and for the development of new drugs for the management of gout and diabetes. In each of these areas, seemingly trivial differences in the drug not infrequently make major differences to patients—and make arbitrary relative efficacy judgments impossible.

Even in the case of the antibiotics, where it is often assumed that it is easy to match the medication against the disease, it is not uncommon to find authoritative disagreements as to the drugs of first choice (or second and third for that matter). For example, one well-known medical guide<sup>4</sup> suggests that the drug of first choice in the treatment of acute gonococcal infections is procaine penicillin G, and that a tetracycline or erythro-

mycin may be used as alternatives; a second and equally respected book<sup>5</sup> mentions no alternative; a third<sup>6</sup> lists erythromycin ahead of tetracycline, and adds a cephalosporin to the list for the physician to consider; still another book<sup>7</sup> does not list any of the alternatives listed in<sup>4</sup> and<sup>6</sup> but adds six separate penicillinase-resistant penicillins, and (any) sulfonamide. None of the referenced guides mentions spectinomycin, a relatively new (1971) antibiotic that has been the subject of numerous favorable reports.

Clearly, there is no unanimity as to the precise ranking of the alternatives to penicillin G in treating gonococcal infections; indeed, there is no agreement as to what the alternatives are.

It must be borne in mind that the physician is not only dealing with a disease, which may follow a varied course, but also with an individual patient, whose reactions to the drugs prescribed may be crucial to the outcome of the therapy. Because the individual patient's reactions can make it dangerous to give him what for most patients is the "drug of choice," the physician must be permitted freedom to use his own judgment.

Recognizing the importance of allowing the doctor's judgment to prevail, Cornell University's Peter Dineen, MD, in his chapter on antibacterial drugs in the 1970-71 *Drugs of Choice* wrote:

"Clinical knowledge is often the method used in selecting a drug, and it may be the best. Properly applied it combines a knowledge of experimental and clinical evidence of the efficacy of various drugs with personal clinical experience. Once the infecting organism is identified, therefore, a reasonable selection of drugs can be made based on experience and knowledge."

Louis Weinstein, PhD, MD, of Tufts, in his chapter on the chemotherapy of microbial diseases in the Goodman and Gilman text, put it another way:

"Presentation of choices of specific agents for the treatment of various infections is always provocative of discussion and disagreement because such choices often represent the distillate of personal experiences that may not duplicate those of others. . . . To complicate matters, sensitivity patterns of a number of micro-organisms often vary with the hospital or clinic in which they are isolated. . . . The material presented in this table represents the practice of the author based on his experience with the management of these infections. It is not intended to suggest that the indicated choices are necessarily those of other physicians or that the order is absolute. . . ."

## Efficacy / PMA

And, Doctor Louis Lasagna, head of the University of Rochester Medical School's department of pharmacology and toxicology, has observed:

"Progress could be defined as discovering truths that are unrecognized or unaccepted by the experts. As someone who has been dubbed an expert by others, and who rather enjoys the privileges that go with that label, I am not suggesting that expertise has no utility in this world. But the experts can err—witness the thromboembolic hazards of the Pill, or the clinical reports (so long derided) on the antidepressant properties of phenothiazines, or the growing body of knowledge that USP standards (concocted by experts) are inadequate. (And, what is more, the experts often disagree among themselves—if you doubt this, poll any group of experts on the antibiotics of choice to be used in treating septicemia of unknown origin.)" (*Clinical Pharmacology and Therapeutics* 11:3, p. 443).

If there is a difference of expert opinion and a need for flexibility in the selection of antibiotics, that need is doubly evident in the selection of many other modes of therapy, where the causative agent or factors may well be less clearly understood, and the characteristics that distinguish one useful drug from another may be considerably less discreet. In the treatment of psychotic disorders, for example, it is widely acknowledged that the relative value of one major tranquilizer as against the others cannot be determined in advance, even though these agents have been under careful and aggressive study for more than 20 years.

Again, the choice of digitalis preparations still presents a challenge, although physicians have studied the use of various forms of these cardiac drugs for about three millennia. Still, according to digitalis authorities Gordon K. Moe, PhD, MD, and Alfred E. Farah, MD in Goodman & Gilman (p. 700), "What really matters is not so much the choice or purity of preparations, but the wisdom with which the drug is used by the physician."

Recent research in pharmacology indicates that there may well be a sound scientific foundation for recognizing the full importance of the use of skillful case-by-case judgment that cannot be performed by experts or authorities absent from the patient-doctor transaction.

The four main factors in a therapeutic re-

lationship are: (1) Physician prescribes (2) drug against (3) disease of (4) the patient. The notion of relative efficacy assumes that for a given disease (factor 3), drugs can be ranked independent of physician (factor 1) and patient (factor 4). This assumption is false. Recent discoveries suggest that the individuality of the patient, and of the physician, play very important roles in determining the effectiveness of drug treatment.

In one review<sup>8</sup> we read:

"Although it has been recognized for many years that patient-environmental variation is important in determining drug effects, only recently has it been appreciated that genetic factors may play a large part in subtle drug-patient variation. Not all drug-patient variations can be ascribed to genetic factors, but the increasing use of metabolic blocking drugs and enzyme inducing drugs has heightened the clinical awareness of possible subtle pharmacogenic problems."

In the area of mental illness, at least, there are increasing suggestions that the importance and effectiveness of drug therapy vary markedly depending, in part, upon the therapist's experience, values, and personality.<sup>9</sup>

Doctor Louis Lasagna discussed the value of relative efficacy information during a January, 1972 conference at the University of Rochester. "To be against information on relative efficacy," he said, "is to be against apple pie, mother love, and the American flag. It turns out, however, that relative efficacy is very difficult to assess. . . . How nice it would be to have controlled trials data on all those drugs in patients who have for example, angina, coronary heart failure, hypertension, melancholia and asthma—but the mind boggles as you think about doing these trials."

Supposing, for example, that a new anti-thyroid drug were marketed, Doctor Lasagna posited that "You might say, 'Well, shouldn't the doctor know how this drug fits in, in terms of relative efficacy, relative toxicity, with other drugs, radio-activity, surgery—a few of the major modalities available for treating hyperthyroidism?' It would be nice again indeed; but again, the prospects of coming up with controlled trials comparing all of those simultaneously is pretty remote."

Moreover, there is a real question as to whether the cost of designing meaningful, definitive studies would be even remotely justified by the patient benefits to be ex-

pected. In most therapeutic classes, the number of distinct drug entities of value in treating a particular condition is small, frequently less than a dozen. Broadly speaking, the pharmacological effects of the group can usually be described, as is done in any of the standard texts of therapeutics. Using this information, and adding his own background and experience, the physician chooses one compound, basing his choice on the particular therapeutic (or economic) qualities it offers his patient.

Rather than expend limited clinical research resources testing one well-known drug against another, the prudent use of those resources clearly lies in the development of entirely new compounds.

Meanwhile, information on the relative place of marketed drugs, weighing their therapeutic indexes against alternative therapy, is being collected and published in the usual ways. Better data on the overall ratio of desired effects to unwanted ones, which characterizes a given group of compounds when used in a particular situation, assists the physician, not merely in choosing a given drug, but also in selecting from alternative classes of compounds of possible value to the patient.

The provision, by their peers, of information for physicians' guidance is, of course, a far different thing than the provision of even the same information by the federal government, whose "guidelines" more often than not carry the force of law. The question naturally arises: What does it mean when the government—as distinguished from a private body or expert—asserts that Drug A is the one of first choice in Condition A? What is the physician's legal position if, on the basis of his personal experience and educational background, he responsibly disagrees?

The question has been raised many times, and in various ways. Over the years FDA officials have challenged distinguished clinicians and practicing doctors who openly advocate usage of prescription drugs in conditions and at dosage levels not indicated in the FDA-approved labeling.

In 1967, for example, Doctor Walter Modell reported that FDA lawyers were claiming that "publishers, authors and editors who have written, approved and published

drug dosages which deviate from those recommended by the FDA are liable for damages. . ." Objecting to this as regulation of medicine by fiat, "to which all doctors will have to turn like Holy Writ when they seek help on drugs," Doctor Modell called attention to the danger of letting FDA assume such power. "There must be free and unrestricted expression of opinion and publication of experience with drugs already officially described and delimited in FDA stuffers," he said, "if progress is to be made in therapeutics and if egregious errors, one way or the other, by the FDA, are to be promptly published and rectified."

Moreover, he said, "in the case of every single drug, the determination of actual efficacy, proper dosage, and safe use requires substantial experience by the expert as well as by the general practitioner. It is held by many that it takes about five years before a definitive statement can be made about a new drug."

The issue was rejoined in 1970, when FDA Bureau of Drugs Director Henry Simmons, MD, advised doctors that whenever they intended to prescribe a medication for use in a manner not approved in the official FDA labeling, they should first file a "Notice of Claimed Investigational Exemption for a New Drug" form.

AMA's Department of Drugs objected vigorously, fearing that "the FDA proposes to approve, forbid, monitor, collect, collate, evaluate, and disseminate results of all clinical experience with drugs in this country that is not consistent with package insert recommendations, regardless of the agency's statutory jurisdiction. . . . We believe the FDA should devote full attention to meeting its statutory obligations, not attempt to expand its statutory grant by regulating the practice of medicine."

AMA stressed that "the physician should always remember a subtle but important distinction: The FDA has no legal authority to approve the uses of marketed drugs; it approves what a manufacturer may *say* about these uses in its labeling and advertising."<sup>10</sup> Earlier, AMA had published its belief that "the package insert is part of the labeling of a drug and not a legal restriction on the thoughtful and careful use of a drug by an informed physician."<sup>11</sup>

That "subtle but important distinction" has never been acknowledged by the FDA, however, and increasingly, in liability actions brought against physicians, failure to adhere to the labeling recommendations is being portrayed by medical malpractice lawyers as *ipso facto* evidence of wrongdoing. Recognizing this, the American Academy of Family Physicians, in an April 7, 1972 letter to FDA, said that relative efficacy judgments in government-approved labeling would carry the threat of "implied police power, if in no other way by the threat of such regulations being used as a 'club' in malpractice suits." The Academy, which represents 31,000 family physicians, urged that FDA abandon any plans to require relative efficacy statements.

One of the most astute students of the regulatory process in drugs worldwide is Sir Derrick Dunlop, the recently retired head of Britain's Medicines Commission, a sister agency to the FDA. Speaking at a symposium in Geneva in September 1971, Sir Derrick summed up the limits of regulatory power in the area of efficacy rulings by official regulators thus:

"I do not believe that opinion on matters of efficacy should be formed by bureaucratic bodies, but rather through the free process of scientific publication, debate and undergraduate and postgraduate education. There is a danger that as regulatory agencies arrogate to themselves more and more the duty of dogmatizing on the efficacy of medicines, that a so-called learned medical profession will eventually be reduced to signing forms entitling their patients to obtain such medicines as the regulatory agencies say they may have."

In a parallel vein, the Pharmaceutical Manufacturers Association wrote to the Commissioner of FDA on December 23, 1971, asking for a statement of intention from the agency on relative efficacy. "No authority exists in the stated terms of the statutes authorizing these activities by FDA," PMA President C. Joseph Stetler wrote, "nor is there any implied authority which might be derived from the legislative history of the Act."

Since pursuance of the plan to require relative efficacy statements "would significantly distort the practice of medicine," Stetler asked for an early clarification of FDA's position.

Four months later, in an address to the PMA's Annual Meeting, FDA Commissioner Edwards told PMA that "the physician—and he alone—can judge" the choice of medication, and that "FDA does not intend, through labeling, to preempt his judgment." But then he added that "if all drugs are properly labeled, relative efficacy ceases to be an issue."

The question, of course, is what is proper labeling?

It is the general rule for FDA to interpret its regulatory powers very broadly; it may therefore be assumed that some agency personnel might deem it necessary for a "properly labeled" drug product to include relative efficacy information. It is imperative that the professions, the pharmaceutical industry and the public be alerted to the dangers of any official action or unannounced application of such a position by the Food and Drug Administration. There must be general recognition that labeling requirements by FDA in the area of relative effectiveness, to the extent that they are given medical and juridical recognition, would represent a fundamental new departure for American medicine, under Federal control, unlike that found in any other national system. In the end, much will depend on how effectively physicians and consumers express their desire to avoid bureaucratic control of this sort, and how well they demonstrate that such procedures do not serve the public interest. □

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In March of 1971 the Public Health Service Ad Hoc Committee on Isoniazid and Liver Disease outlined what it considered to be adequate surveillance for persons receiving isoniazid prevention therapy. The monitoring procedures recommended by that committee include:

- interviewing of patients and evaluation by clinical means at monthly intervals. This should include an appraisal of symptoms consistent with those of hepatic damage (anorexia, fatigue, malaise), and signs consistent with those of hepatic damage (brownish urine and icterus of conjunctivae or skin);
- advise that if patients develop such symptoms and signs during treatment, they should discontinue the drug immediately and report to the prescribing physician;
- the committee specifically recommended against routine monitoring by laboratory tests of liver function;
- no individual should receive more than one month's supply of the drug at a time. Each patient should be interviewed and his



## News From The Oklahoma State Department of Health

clinical status evaluated before a new supply is issued.

• isoniazid chemoprophylaxis should *not* be initiated or continued in individuals who cannot be followed in accordance with the above surveillance measures.

On January 23, 1973 the Public Health Service modified the March 1971 recommendations by stating ". . . there is no need to change in any way the use of isoniazid as a chemotherapeutic agent in the treatment of tuberculosis disease. However, until further information about the relation of alcohol and isoniazid-associated hepatotoxicity is developed, *it is recommended that alcoholics who have been infected with the tubercle bacillus but who do not have abnormal chest films or any other risk factors should not be given preventive treatment.* □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR JANUARY, 1973

Disease	January 1973	January 1972	December 1972	Total to Date	
				1973	1972
Amebiasis	1	1	2	1	1
Brucellosis	—	—	—	—	—
Chickenpox	14	37	6	14	37
Encephalitis, infect .	1	—	2	1	—
Gonorrhea	968	759	844	968	759
Hepatitis, infect. & serum	35	42	70	35	42
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal infections	2	—	6	2	—
Meningitis, aseptic	1	1	2	1	1
Mumps	8	31	2	8	31
Rabies in animals	7	8	12	7	8
Rheumatic fever	1	1	1	1	1
Rocky Mt. spotted fever	—	1	—	—	1
Rubella	2	2	2	2	2
Rubella, congenital syn.	—	—	—	—	—
Rubeola	2	1	2	2	1
Salmonellosis	18	3	22	18	3
Shigellosis	13	1	43	13	1
Syphilis	65	80	68	65	80
Tetanus	—	—	—	—	—
Tuberculosis, new active	22	16	30	22	16
Tularemia	2	—	2	2	—
Typhoid fever	1	—	—	1	—
Whooping cough	2	1	1	2	1

## PSRO Referendum To Be Conducted

A vote of the association's entire membership has been ordered by the OSMA Board of Trustees. The vote will be to determine whether or not the association will serve as the Professional Standards Review Organization for Oklahoma physicians.

The referendum is scheduled to be conducted in early April. Prior to the vote, regional seminars are being held to explain the PSRO law.

The following is a brief explanation of the new law:

In October, Congress passed Public Law 92-603, which establishes Professional Standards Review Organizations . . . known as PSROs . . . and makes other major changes in Medicare and Medicaid.

PL 92-603 was one of the most controversial bills ever considered by the U. S. Congress . . . it was debated for three years prior to enactment. During the time it was pending before Congress it was known as H.R. 1, the Social Security Amendments of 1971. The OSMA was among the first medical associations to send a delegation to Washington to protest the peer review portion of the massive health and welfare bill. The American Medical Association actively opposed the creation of PSROs.

### PROFESSIONAL STANDARDS REVIEW ORGANIZATIONS

The PSRO law intends to blanket the nation with a federally funded computerized system to inspect all Medicare and Medicaid claims filed by physicians, hospitals and other health care practitioners. No claim for institutional services may be paid unless: (1) the services are found to be *medically necessary*; (2) the quality of health services provided are determined to meet *federal standards of quality*; and (3) the choice of health care facility is *deemed to be appropriate* (economical).

Prior approval of elective hospital admissions and the review of outpatient services

are optional features of PSRO in the beginning, but will be required as the program matures. The law requires that "profiles" of utilization must be developed on Medicare and Medicaid patients and that similar "profiles" must be established for each health care practitioner.

The PSRO organization will decide when physicians must certify the need for further inpatient care for their institutionalized patients.

Claims will be processed through a computer programed with federally established "norms" to determine appropriate lengths of stay as related to age and diagnosis, standards of treatment as related to diagnosis, quality of services, and appropriateness of the health care facility utilized.

The PSROs shall not have authority over physician's fees except through disallowing services or granting justifiable extensions of care beyond the federal norms. Claims falling outside the computer "norms" or "parameters" will be subject to personal review by physician review teams.

PL 92-603 requires that the expense of the PSROs will be underwritten by the Department of HEW, that they will be established on a regional basis and that membership must be open to all licensed MDs and osteopaths regardless of medical society affiliation.

HEW Secretary will designate PSRO areas throughout the United States and attempt to negotiate conditional contracts for local PSRO groups by January 1st, 1974. Until January 1st, 1976, only organizations representing more than 50 percent of the physicians in an area can be designated as PSROs.

Before signing a conditional contract (prior to 1976), the HEW Secretary must advise all physicians in the area as to the contracting local organization. If 10 percent object, the Secretary must conduct a referendum and achieve more than 50 percent participation before signing a contract with the applicant organization. The conditional contract shall be on an annual basis, but either the PSRO or the Secretary may ter-

minate the contract upon 90 days notice.

The law specifies that PSROs must be non-profit associations and must have available the professional competence to review appropriate professional services. It is anticipated that a PSRO must encompass at least 300 physicians. Physician organizations have priority in the establishment of PSROs. If no such organization exists in a given region, after January 1st, 1976, the Secretary may designate a public or non-profit organization to serve as the PSRO.

Data, information and records will be collected by the PSRO as directed by the Secretary of HEW, who will have access to them. Only MDs and DOs may review actions of their peers.

If a PSRO disapproves of services provided, it must notify the claims agency (carrier), the practitioner and the patient. No physician or PSRO employee is civilly liable solely for actions taken in compliance with or reliance upon PSRO norms. However, failure to exercise due care or malice could result in liability.

It is possible for there to be only one PSRO for an entire state. However, if there are three or more PSROs in a state, the Secretary of HEW will establish a "statewide Professional Standards Review Council." Membership in such a council will consist of one representative from each PSRO, two physicians designated by the state medical association, two physicians designated by the state hospital association, two laymen appointed by the Secretary of HEW and two laymen appointed by the governor. The statewide PSR Council will be "assisted" by an "advisory council" of not less than seven nor more than eleven members, which will be made up of non-medical care practitioners and representatives of health care facilities.

The statewide PSR Council will generally coordinate the activities of multiple PSROs in a given state. Each PSRO is to report violations of obligations imposed on practi-

## AMA Survey on PSRO Revealed

Thirty-six state medical societies plan to apply for designation as PSROs, according to a survey by the AMA's Center for Health Services Research and Development. Only five state associations said they did not plan to apply. Ten others stated that they had not yet made a decision.

All 50 states and the District of Columbia were surveyed. Only one society reported that it probably would not receive the support of its members if it became involved in PSRO. Nineteen said they already had membership support and twenty-six said they were confident of receiving such support. The governing bodies of 32 associations have authorized PSRO involvement.

Thirty-five state associations said that their PSRO would be handled by a separate foundation, and twenty-six said the foundations were already established. No state association favored a situation in which state and counties operated independently.

President Nixon's budget for fiscal 1974 asked for nearly \$34,000,000 to fund PSRO activity. Much of this money is allocated for contracts to prototype conditional and operational PSROs. Slightly more than \$9,000,000 will have been spent by the end of fiscal 1973, according to the budget. The 1974 request is for \$19.3 million for prototype PSROs, \$6 million for conditional PSROs and \$900,000 for operational PSROs. In addition, the budget asked for \$6 million for PSRO evaluation contracts and similar activities.

tioners, along with its recommendations for action to be taken, to the council, which in turn transmits its recommendations to the Secretary of HEW.

Violators of the PSRO law and regulations

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may be banned from participation in government funded programs or, if they wish to continue in the programs, they may be fined the lesser of \$5,000 or the cost of improper services.

If practitioners dispute PSRO decisions, they may appeal to the statewide PSR Council if the amount in question is at least \$100. A patient may appeal directly to the Secretary of HEW, or may obtain judicial review if the amount in question is \$1000 or more.

A national Professional Review Council composed of eleven physicians, a majority recommended by national medical organizations and the balance by consumer groups, will be created.

#### OKLAHOMA FOUNDATION FOR PEER REVIEW

In January, 1972, the OSMA House of Delegates established the Oklahoma Foundation for Peer Review in anticipation of the passage of P.L. 92-603. As a non-profit foundation operating semi-independently of the OSMA, the foundation will probably qualify as a PSRO with only minor alterations.

The OSMA Board of Trustees elects the Board of Directors of the Foundation. Distribution of the foundation board members is based upon physician population . . . for example, four members are from Oklahoma County, three from Tulsa and five from the rest of the state. The OSMA President, President-Elect and Board Chairman are non-voting ex-officio members. If DOs elect to participate in the PSRO, as must be offered under the law, the composition of the foundation board would have to be altered to accommodate proportionate DO representation.

If the OSMA elects to become involved in PSRO through its foundation, it is anticipated that initially the board will create three professional review teams . . . one in Oklahoma City, one in Tulsa, and one to handle cases involving the balance of the state. Other systems may be employed as experience is gained.

All Medicare and Medicaid claims would first be screened by a computer against the norms or standards required by law. Presumably, the vast majority . . . as high as 85 percent . . . would be approved at this

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point for payment. Those rejected by the computer would be resolved by physicians employed by the foundation through direct contact with the claimant-physician. Hopefully, only a small percentage . . . less than four percent . . . of claims would be sent to physician review teams for adjudication.

Since federal laws usually leave a great deal of implementation up to regulations, it is conceivable that any PSRO will be materially altered by such regulations when they are issued. It is also conceivable that the operation of a PSRO could be continuously changed through the issuing of new regulations.

#### OSMA REFERENDUM

Knowledgeable Oklahoma physicians have mixed emotions about assuming sponsorship of PSRO. Some feel that is a prelude to national health insurance . . . and that the OSMA would become an agency of the government and therefore attract the wrath of its own members and destroy itself . . . and that more money will be spent than saved . . . and that the program is doomed to failure and organized medicine should not be in the position to be blamed.

Other physicians feel that organized medicine must take the opportunity to control its own destiny, if at all possible. It is a federal law which cannot be ignored, they say, and it would be unwise to transfer the peer review function to a non-medical group through default.

All OSMA members are urged to become as familiar with the PSRO provisions of the new law as possible so that they can make an informed decision when it comes time for the association to conduct its referendum. □

### Phase III Regulations Change Compliance Requirements

Under Phase III of the Wage and Price Stabilization Program price schedules and signs are no longer required in physician's offices and health care institutions.

The Phase III price control regulations revoked those in Phase II that required physicians and institutions to keep available for public inspection a schedule of charges for principle services and to post a sign giving the location of the schedule.

Prior to the announcement of the Phase III

regulations, the Internal Revenue Service had ruled that it was possible for a physician to increase his fees up to five percent without seeking prior approval of the IRS. However, in order to do so the physician may not have increased his fees during 1972 and any such increase could not change his profit margin . . . the percent of profit as compared to his gross income . . . from previous years.

Also, if a physician's fee increase was ever questioned by the IRS, it would be necessary for him to show increased costs of doing business.

The new Phase III regulations permit physicians to change the method of calculating their profit margin. Under Phase II, the base period profit margin was determined by using a weighted average of two of the past three fiscal years ending before August 15, 1971. Under the new regulations, physicians have a wider choice. They may choose any two fiscal years from among the last three completed before August 15, 1971, or from those completed since August 15, 1971. □

### Medical Assistants To Meet

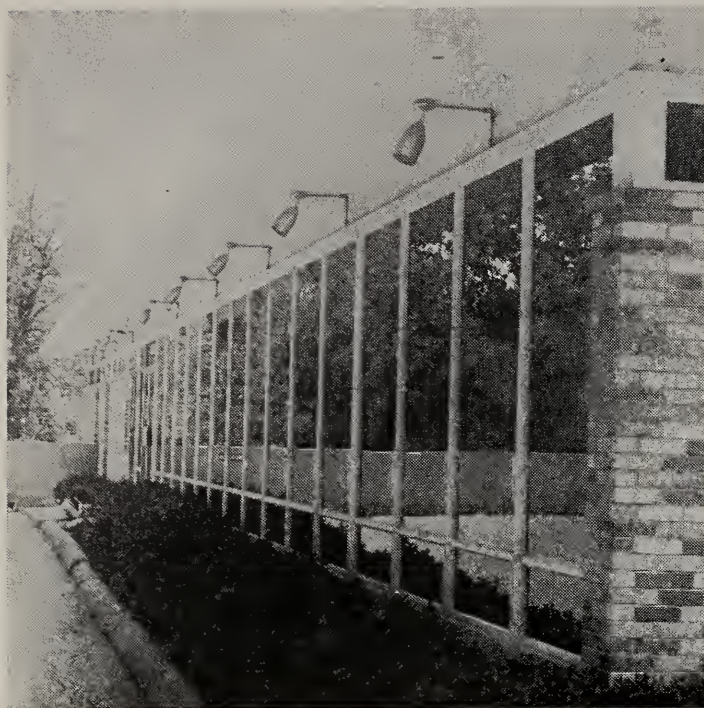
The 25th Annual meeting of the American Association of Medical Assistants of Oklahoma will be held May 4th, 5th and 6th, 1973, in Oklahoma City. Theme for this year's meeting will be "Wheel of Professionalism." Site for the convention will be the Hilton Inn, 2945 N.W. Expressway, in Oklahoma City.

Most of Friday, May 4th will be filled with the Board of Directors' and House of Delegates' meetings. The evening will feature a "Happy Hour" followed by entertainment which will include Men's Auxiliary Wear from Mr. Ooley's Shop. Golfing and bowling have been planned for the husbands of assistants attending the meeting.

The formal program will begin on Saturday morning. There will be a cocktail hour and banquet on Saturday night at which time the new officers will be installed.

Sunday morning activities include a breakfast and program followed by a post-convention meeting.

Further details of the convention may be obtained from Convention Chairman, Mrs. Frankie McLaughlin, AAMA-State of Oklahoma, 2519 Wilburn Avenue, Bethany, Oklahoma 73008. □



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## Hypertension-Hyperlipidemia Detection Drive

The Oklahoma Heart Association has embarked on a new and much-needed program to serve Oklahoma citizens. This statewide drive is an "attack" at two major risk factors, hypertension and hyperlipidemia. The drive aims at:

- 1) Identifying persons with high blood pressure or cholesterol,
- 2) Notifying these persons and their respective physicians of the abnormal values obtained and the need for therapy,
- 3) Educating such patients and seeking their physician's help to aggressively treat these disorders, and
- 4) Providing means of follow-up of these patients.

Presidents of the Oklahoma State Medical Association and the Oklahoma and Tulsa County Medical Societies were notified about the drive, which they approved. Doctor S. R. McCampbell responded, "As President of the Oklahoma State Medical Association, I can assure you of our support, approval and in fact encouragement on this much-needed effort."

In adopting this drive, the Oklahoma Heart Association lines up with national and international combatants of hypertension. In 1971, the National Heart and Lung Institute initiated the Hypertension Detection and Follow-up Program which is currently ongoing in 15 clinical centers across the nation who are cooperative in the program.

In 1972, at the World Health Organization November conferences, held successively in Copenhagen and Geneva, a call to action was made for a massive coordinated campaign under the aegis of the World Health Organization for control of hypertension and its complications.

The Veterans Administration Cooperative Study on Antihypertension Agents has demonstrated the effective long-term control of hypertension markedly reduces the incidence of the cardiac and vascular complications of hypertension.

Tuberculosis, Diabetes and Cancer Detection Programs have been of proven value to communities at large. Hypertension and hyperlipidemia are two new frontiers that should and must be tackled in order to control their cardiac and vascular complications.



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In order to acquaint the Oklahoma medical and dental professions with the Hypertension and Hyperlipidemia Detection Drive, the Oklahoma Heart Association elected to initiate the drive at the Oklahoma Dental Society and Oklahoma State Medical Association meetings held in March and April, 1973, respectively, and at the meeting of the Oklahoma City Clinical Society and the Oklahoma Academy of Family Physicians, held March, 1973. □

## Cancer Forum Scheduled

The Arkansas-Oklahoma Cancer Forum, co-sponsored by the Arkansas and Oklahoma Divisions of the American Cancer Society, is holding its 5th annual meeting. This year, the meeting will be in conjunction with the Oklahoma City Clinical Society and will be at the new Myriad Center in Oklahoma City.

The Oklahoma County Unit is also sponsoring an additional afternoon seminar on breast cancer including topics on screening management, and ultimate rehabilitation of the breast cancer patient.

The forum has two general themes: The

morning session is on the immunologic and immunotherapy aspects of neoplasia, and the afternoon is devoted to certain vexing problems on head and neck cancer with various modalities of management.

Attempts to enlist the host resistance to cancer have been made for more than 70 years but it has been only within the past decade that significant advances have occurred. Some practical aspects currently available will be presented as well as immunotherapy as a definitive tool.

Significant achievements in cancers of the head and neck will be presented as a multi-disciplinary approach. These will include some of the more conservative aspects of laryngeal cancer and reconstruction-rehabilitation of certain nasal and sinus cancers. The radiotherapy approach will be discussed as to its uses, benefits, and limitations.

There are several methods of palliating the "incurable" lesions and some of the newer chemotherapy compounds and combination drug studies will be presented.

The program committees have brought together some of the most prominent men in their fields and this should be one of the most practical as well as enlightening meetings we have had.

Among the speakers are Doctor Edward Klein of Buffalo, New York, Doctor H. F. Siegler of Duke University, Doctor Joseph O'Gura of St. Louis, and faculty members of the University of Oklahoma. Each session will be followed by panel discussions. □

## President-Elect Seeking Committee Volunteers

C. Riley Strong, MD, President-Elect of the Oklahoma State Medical Association, is seeking physician volunteers for the association's various councils and committees.

Physicians interested in volunteering for

committee assignments should contact the President-Elect in care of the state medical association's office at 601 N. W. Expressway, Oklahoma City, Oklahoma 73118.

The following is a list of the OSMA's Committees and Councils: Annual Meeting Committee, Constitution and Bylaws Committee, Medical Legal Relations Committee, Medical-Dental Liaison Committee, Council on Insurance, Council on Professional Education, Council on Professional and Inter-vocational Relations, Medical Center Liaison Committee, Council on Public Health, Committee on Alcoholism and Drug Abuse, Committee on Immunization, Committee on Laboratory Quality, Maternal Mortality Committee, Council on Public Policy, State Legislative Committee, Public Relations Committee, Medical Heritage Committee, Council on Socio-Economic Activities, Occupational Medicine Committee, Prepaid Medical Care Committee, Governmental Relations Committee and Peer Review Committee. □

## OU Class of '58 To Meet At Shangri-La

The Class of 1958, University of Oklahoma College of Medicine, will hold its third reunion at Shangri-La Lodge on Grand Lake, May 5th and 6th, according to Norman A. Cotner, MD, General Chairman.

About forty physicians are expected to attend. The class, which reunites every five years, has previously met at Lake Murray and in the Missouri Ozarks.

An educational program on the application of computers to medicine will be presented by the American Medical Association. In addition, social events, golf and tennis are being planned by Ed A. Brashear, MD, Tulsa, Hugh Perry, Jr., MD, Tulsa, and William A. Cunningham, MD, Oklahoma City.

Doctor Cotner urges all 1958 OU graduates to make their reservations early. □

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**ROBERT S. SRIGLEY, MD**  
1914-1973

Altus surgeon, Robert S. Srigley, MD, died January 19th, 1973. Born July 11th, 1914, in Athens, Ohio, Doctor Srigley received his medical degree from Harvard Medical school in 1939. He established a practice in Hollis, Oklahoma in 1947, going from there to Ardmore. He moved to Altus in 1957.

Doctor Srigley was a member of the American College of Surgeons, the American Board of Family Practice, the American Society of Abdominal Surgeons and a Diplomate of the National Board of Medical Examiners.

**GEORGE A. TALLANT, MD**  
1902-1973

Retired Frederick physician, George A. Tallant, MD, died February 5th, 1973, in Wichita Falls, Texas. Doctor Tallant was born August 20th, 1902 in McKinney, Texas and graduated from the University of Oklahoma College of Medicine in 1936. He practiced in Guthrie, Fort Sill and Walters, Oklahoma, before moving to Frederick. He was a member of the American College of Surgeons.

**MARGARET G. HUDSON, MD**  
1897-1973

Retired, Child and Maternal Health Care Director for the Tulsa City-County Health Department, died January 27th, 1973. She was the wife of David V. Hudson, MD, retired Tulsa physician. Doctor Hudson graduated from Johns Hopkins Medical School in 1924. She and her husband taught at the University of Iowa Medical School before moving to Tulsa in 1930.

Doctor Hudson and her husband were chosen "Doctors of the Year" by the Tulsa County Medical Auxiliary in 1964.

**JOSEPH A. RIEGER, MD**  
1894-1973

Former Assistant Superintendent of Central State Hospital in Norman, Joseph A. Rieger, MD, died February 3rd, 1973. Born in Lexington, Oklahoma, Doctor Rieger was graduated from the University of Oklahoma College of Medicine in 1932, where he served as Assistant Professor of Pharmacy and Clinical Professor of Psychiatry for several years. He was affiliated with Central State Hospital from 1934 to 1953. □

## Book Reviews

**KIDNEY DISEASE IN THE YOUNG.** By Elvira Goettsch, MD, Philadelphia. W. B. Saunders Company, 1971, 305 pp. \$22.50

This volume, which is written by a pediatric nephrologist who was associated with the late Dr. John D. Little of the Children's Hospital, Los Angeles, is composed of a series of reviews of varying length and depth. Some are lengthy rather than informative. It is made up of six parts entitled as follows: (1) Bright's Disease in Childhood (2) Acute Glomerulonephritis (Postinfectious Hemorrhagic Nephritis) (3) Nephrotic Syndrome (4) Common Forms of Chronic Glomerulonephritis (5) Chronic Pyelonephritis (6) Less Common Forms of Bright's Disease. Some of the data, many of the references, and certain of the technical approaches to diagnosis are from previous generations of medical prac-

tice. The book in fact is not a compendium of "kidney disease in the young," but rather an in-depth review of the experience that these two distinguished pediatricians have had with glomerulonephritis in its various forms. Renal cystic disease, the tubular and other metabolic diseases, malformations, cortical necrosis, and renal vein thrombosis are not covered, but at best, merely mentioned.

The format is difficult to read with double columns and case histories in small type. The texture of the paper does not lend itself to good reproductions of photomicrographs. The book format suggests that it was published more as a tribute rather than an attempt to cover all aspects of renal disease in infants and children. Despite these problems, the approach to certain renal problems contains detailed, historical material and inval-

uable personal experiences. Because of its organization and certain other features, it will not be widely used by most pediatricians, but deserves a place in medical school libraries. *Harris D. Riley, Jr., MD*

#### **DOCTOR AND PATIENT AND THE LAW.**

Fifth Edition. By R. C. Morris and A. R. Moritz. St. Louis: C. V. Mosby Company, 1971. 554 pp. \$24.50.

The relationship between medicine and the law becomes more important and complex with each passing year. The critical need for better inter-professional understanding between these two groups can be satisfied only through constructive, intelligent dialogue and education. The fifth edition of this book, just as prior editions have done, makes an excellent contribution to the achievement of this objective. Doctor Moritz, one of the leaders in legal medicine and forensic pathology in this country, and Mr. Morris, an attorney, have combined their talents and efforts in producing this book.

The new edition, expanded and updated, follows the same topic outline as the fourth edition in 1962 but reflects important new developments since that time. The legal responsibility and rights of physicians and their relationship to hospital, patients, courts, and professional and governmental organizations are discussed with detail and clarity. The fifth edition contains much updated information including new discussion on organ transplantations with comments about the Uniform Anatomical Gift Act, recently adopted abortion statutes, the informed consent doctrines and various other innovations in the overall field of medical practice.

This book can be recommended to every practitioner in medicine and every attorney who engages in personal injury litigation or criminal law. *Harris D. Riley, Jr., MD*

**PEDIATRICS.** Mohsen Ziai, MD (editor); Little, Brown and Company, Boston. 1969. 967 pp. \$11.50.

This book will be useful to students not only because it is a combination of writing from internationally recognized authorities but also because it has useful, basic and timely information on the entities common-

ly met in a general pediatric practice. The editor states in the preface that "discussions of rare and poorly understood subjects and of those that could easily be referred to in the standard text have been intentionally condensed except for material containing the pathophysiology and therapy." The volume thus complements the standard text. Each chapter contains a bibliography. There are three appendices on differential diagnosis, drug dosage and normal-limit laboratory values. The index is detailed and comprehensive. *Harris D. Riley, Jr., MD*

#### **ADVENTURES IN MEDICAL WRITING.**

By Robert H. Moser and Erwin D. Cyan. Springfield, Illinois. Charles C. Thomas. 66 pp. \$6.00.

In recent years, medical writing has received a great deal of criticism. It is stated that it often lacks clarity, specificity, and is filled with its own jargon, verbosity, and pomposity. Physicians and other scientists may be fluent conversationalists, but frequently when they pick up their pen, their language often becomes stilted and formalized, their style stiff and prosaic.

In the opening essay, Doctor Moser states "Medical writing is a difficult business. Some of our dreary trade journals remind me of poorly tended graveyards; one can turn to almost any page and stumble over bare, bleached bones—remnants of dismembered syntax, mutilated grammar and neglected spelling—which are reminders of generations of witless, monotonous prose." He advises his medical peers, "If you have something to say, proceed with caution, contemplate your subject with care, execute it with circumspection, report your observations in good faith, derive your conclusions rationally; write it with clarity. And the scientific community will light a taper for you."

Adventures in Medical Writing is a compact, easy-to-read text which contains six essays on medical writing which are offered by physician writers. The subjects include the organization and inspiration of medical writing, library resources of medical literature, techniques, problems of publishing medical articles, nature of editors, diseases

news

of prose, medical jargon and medical verbosity.

Physicians who wish to write for publications should read this text which specifically "talks" to them in their language. *Harris D. Riley, Jr., MD*

#### **CURRENT CONCEPTS IN DYSLEXIA.**

Jack Hartstein, Editor, C. V. Mosby Company, St. Louis, 1971. 212 pp. 34 illustrations. \$12.00.

The term "dyslexia" holds many meanings for many different people. The author, an ophthalmologist and consultant to a reading clinic, has edited a collection of essays by representatives of a variety of health fields. A large number of different disciplines are concerned with the problem of dyslexia, including educators, physicians, (especially pediatricians, neurologists, ophthalmologists, and psychiatrists), as well as psychologists and speech pathologists. Representatives from all these disciplines have contributed to this book. The authors do not entirely agree with each other, but this is not surprising in view of the many different concepts and approaches to this disorder. The book contains a great deal of useful information for all persons interested in dyslexia.

*Harris D. Riley, M.D.*

**PEDIATRIC CARDIOLOGY.** By Alexander S. Nadas, MD and Donald C. Fyler, MD Philadelphia: W. B. Saunders Company 1972. 749 pp. \$25.00.

The third edition of this valuable book appears 15 years after the first edition. The book differs from other textbooks on pediatric cardiology in that it is based almost entirely on the experience of pediatricians and other physicians at one hospital — the Children's Hospital Medical Center in Boston. Dr. Nadas is joined as author of this third edition by Donald C. Fyler, a colleague of some 20 years.

This book has been widely accepted because of the well-organized descriptions of diagnostic and treatment regimens of infants and children with all types of cardiac disorders. The new edition reflects many of the advances in the management of heart disease

in children since the second edition which appeared in 1963. For example, advances in the treatment in tetralogy of Fallot with open repair and closure of ventricular defects and cardiopulmonary bypass relief of pulmonary stenosis have reduced the mortality rate to less than five percent in cyanotic cases and to almost nil in acyanotic cases. There is also further information on techniques used in the management of complete transposition of the great arteries and a recount of experience with valve replacement in a variety of disorders.

As in past editions, this volume has excellent illustrations and a comprehensive, up-to-date bibliography. It will continue to be a valuable addition to the library of all physicians dealing with children with heart disease. *Harris D. Riley, Jr., MD*

**CARDIOVASCULAR PHYSIOLOGY, SECOND EDITION,** Robert M. Berne, MD and Matthew N. Levy, MD The C. V. Mosby Co., 1972 \$9.25.

This is an updated second edition of an excellent text in which the authors include general physiology but stress function at the cellular and biochemical levels. Initial chapters include a short introduction to the gross circuitry, the electrical activity of the heart, hemodynamics and the function of the heart as a pump. Following this there are detailed descriptions of the systemic arterial system and of the capillary and lymphatic beds. Three chapters then discuss the systemic circulation, the regulation and control of the heart, and the interrelation of cardiac output and venous return. Chapters discussing special circulation follow, one on the coronary circulation and myocardial metabolism, and another on cutaneous, skeletal muscle, cerebral and fetal circulations. No detailed discussion of the pulmonary circulation is included and this is a serious deficiency. The final chapter is on the interplay of cerebral and peripheral factors in regulation of the circulation and includes a discussion of an integrated approach to physiologic function.

The book is relatively brief and thus cannot go into great detail and for this age of steady inflation, the price is most reasonable. The authors' purpose as stated in the preface is well-met. This is an excellent text for the

student and for the practicing physician.  
*W. M. Thompson, Jr., MD*

**CLINICAL PHARMACOLOGY: BASIC PRINCIPLES IN THERAPEUTICS.** Edited by Kenneth L. Melmon, MD, and Howard R. Morrelli, MD, New York: MacMillan Company, 1972. 718 pp.

The authors state that this textbook was written (1) to help medical students understand how to approach the problems of administration of drugs to man, and (2) to show house staff and practicing physicians who learned therapeutics in a "hand-me-down" fashion that this instructional approach at best fosters mediocrity in therapeutics and should be replaced by a more efficacious and satisfying method. It is divided into four sections: Basic principles of drug administration, especially their pharmacokinetic aspects; the influence of disease on drug action and the role of drugs in the

treatment of disease of various body systems; the recognition and evaluation of the effects of drug administration; and the application of these principles illustrated by cases studied in the Clinical Pharmacology Consultation Service. In addition to the two editors, there are seventeen contributors.

As with any book with numerous contributors, there are several instances of overlap and redundancy, as well as conflict of opinion among the various authors on certain issues. There is also a great deal of information which will not be useful to the group for which it was intended, such as the detailed mathematical calculations and other information.

The book contains much useful material, but it will be of greatest value not to medical students, house staff and practicing physicians, for whom it was intended, but for those who intend to pursue special training in clinical pharmacology. *Harris D. Riley, Jr., MD* □

### Miscellaneous Advertisements

**PRACTICE FOR SALE.** Entering residency program. Wish to sell practice in surgery and general medicine. Located in community of approximately 10,000, 25 miles from major metropolitan area. Gross income in 1972, \$111,000 with collection ratio of 98.2 percent of billed charges. Area needs someone interested in OB. Wish to sell share of multi-office building and all equipment. Lease possible. Contact Ed Kelsay, OSMA 405 842-3361.

**GENERAL PRACTICE—SOUTHWEST OKLAHOMA** farm and ranch community. Five or six major surgeries per month, no OB. Four and one-half day work week with two months off, still net \$50,000. Building available or owner will rent. Price for practice and equipment \$16,000. Professional Practice Sales, 1215 Walker Avenue, Houston, 77002. 713 222-9112.

**TWO DOCTOR CLINIC.** Sears Foundation clinic, rent free. For further information and brochure, call collect, area code 405, 549-6045, 549-6115, 549-6551, 549-6106.

**CLINIC PHYSICIAN NEEDED** by Oklahoma City-County Health Department. Forty hour week; emphasis on pediatrics;

specialization not required. Starting salary \$26,400 with six annual raises to \$33,600. Paid hospitalization insurance and \$30,000 life insurance. Annual leave, sick leave, and holidays. Fifteen years service makes retirement (at age 65) of \$1,000+ per month, plus social security. Position open now. For complete information call or write: John W. Gales, MD, Director; Oklahoma City-County Health Department, 921 N.E. 23rd; P.O. Box 53445, Oklahoma City, Oklahoma 73105. Telephone 405 427-8651.

**7300 SOUTH WESTERN,** new medical-dental clinic. Excellent location for any type MD. 2,400 square feet left. Will rent all or part. 631-3304 or 843-1709.

**INTERNAL MEDICINE PRACTICE.** Thirty minutes to Tulsa. Excellent opportunity for internist or general practitioner interested in internal medicine. Well established group of surgeon, gynecologist and internist. Selling price of \$32,500 buys one-third of building, equipment and practice income. Net \$75,000. Professional Practice Sales, 1215 Walker Avenue, Houston, 77002, 713 222-9112.

(Continued on Page 136)

# What it means to live and work in Tipton County, Tennessee

**Persons who are white and  
over 40 have one chance in four  
of having solar keratoses...  
which may be premalignant**

An epidemiologic study\* conducted in Tipton County, Tennessee, revealed that 28.5% of white persons over 40 had solar keratoses; most had multiple lesions. Cluster sampling projected an estimated prevalence of 32.5% for white males and 19.5% for white females.

Though this is an unusually high percentage of affected persons, these lesions can occur in any white population, wherever people work or play out of doors.

**Prevalence of solar keratoses in white persons  
over 40 in Tipton County, Tennessee**

Female	159	44
Male	117	66

☐ Persons without solar keratoses    ☒ Persons with solar keratoses

\*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.



## Solar, actinic, senile keratoses

Called by many names, the typical lesion is flat or slightly elevated, brownish or reddish in color, papular, dry, adherent, rough, sharply defined; usually multiple lesions, chiefly on exposed portions of the skin.

## Sequence/selectivity of response

Erythema in areas of lesions may begin after several days of therapy; height of reaction (usually in affected areas)\* usually occurs within two weeks, declining after discontinuation of therapy. Since this response is so predictable, lesions that do not respond should be biopsied to rule out the presence of a frank neoplasm.

## Cosmetic results

Cosmetic results are highly favorable. Incidence of scarring is low—important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

## 5% cream—a Roche exclusive

Only Roche formulates the 5% cream... high in patient acceptability... high in clinical efficacy, especially for lesions of hands and feet... economical.

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Multiple actinic or solar keratoses.

**Contraindications:** Patients with known hypersensitivity to any of its components.

**Warnings:** If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

**Precautions:** If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

**Adverse Reactions:** Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

**Dosage and Administration:** Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

**How Supplied:** Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)amino-methane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

an alternative to  
conventional therapy  
**Efudex<sup>®</sup>**  
(fluorouracil)  
cream/solution



Roche Laboratories  
Division of Hoffmann-La Roche Inc.  
Nutley, N.J. 07110



**FOR SALE OB-GYN PRACTICE AND EQUIPMENT**, including examining tables, desks, chairs, surgical cabinets, filing cabinets, cyro surgery machine, sterilizer, electric cautery machine, etc. Office open until April 1st, 1973. Contact 201 Pasteur Building, 1111 North Lee, Oklahoma City. Telephone 232-3151.

**UNUSUAL OPPORTUNITY.** Complete package for proposed medical office building, two blocks from St. Anthony Hospital. Tax shelter for the right doctor or group of doctors. Contact Oliver Purcell, 848-5023, office hours, 751-0999, early or late.

**THE GOOD LIFE** - Physician to join outpatient department (primarily industrial trauma) of multi-specialty clinic. Optimum hours. Income well above average. Many fringe benefits. W. F. Phelps, MD, P.O. Box 3718, Tulsa, Oklahoma 74152, (918) 742-3341.

**LOCUM TENENS** wanted for busy general practice for June, July or August, 1973. Attractive financial arrangements. Please contact David A. Campbell, MD, 2733 West Britton Road, Oklahoma City, Oklahoma 73120.

**PHYSICIANS WANTED.** Planning to build multi-suite Professional Mall in Weatherford, Oklahoma, a friendly fast growing college city; will build to suit. Need Two MDs. Write T. J. Toma, DDS, Box 310, Weatherford 73096.

**VETERANS ADMINISTRATION** Regional Office in Muskogee, Oklahoma, has one vacancy for the position of Medical Officer (Disability Evaluation). Duties consist of evaluating medical aspects of claims for disability compensation. Salary range: \$21,686 to \$26,690 per annum; 8 a.m. to 4:30 p.m., Monday through Friday, nine paid holidays, annual leave, sick leave, excellent retirement system, and other fringe benefits. For complete information call or write: Mr. F. M. Emerson, Jr., Personnel Officer, Veterans Administration Regional Office, Second and Court Streets, Muskogee, Oklahoma 74401. Telephone 918 683-3111, Extension 202.

**EXCELLENT OPPORTUNITY FOR GENERAL PRACTICE** in nice community near Lake Eufaula. Privileges in modern

44-bed hospital. Space available for G.P. in clinic adjoining hospital that already has an abundant patient load. Can expect full-time practice in a short time, along with time-off coverage. Guaranteed starting salary — rapid chance of advancement — with capabilities of earning up to \$50,000.00 yearly. At present time, there are four doctors on staff, rotating, taking week-end and night calls. Located in an ideal community from which the patients are drawn from an area of approximately 20,000 population. Ideally located on Highway I-40 and 169—an hour's drive to Tulsa theaters and restaurants and only an hour and a half from downtown Oklahoma City. There is a new high school and a new grade school. A small town having all the advantages of a city. A wonderful place for raising children. This is a marvelous opportunity for a family type practice with time off. Call: Carlton E. Smith, MD, 918 652-3337, Henryetta, Oklahoma—collect.

**FREE TO A RESPONSIBLE** young physician; reception room, business office, two consultation rooms, three treatment rooms of furniture; X-ray; EKG; and other equipment, including surgical instruments, who will purchase, on a rent contract basis, the building containing this furniture. The building consists of a large reception room, business office, two consultation rooms, three treatment rooms, X-ray room and laboratory; central heating and air-conditioning, adequate parking (off street) and is across the street from the post office, on the main street of town, and one and one-half blocks from a 70-bed, open staff hospital. This building is carpeted throughout, with draperies at the windows, and the rooms are paneled in walnut. Terms for the building, \$400.00 per month for a period of 13 years plus maintenance. There are four other physicians in this community of over 10,000 who are willing to assist and cooperate. An orthopedist or a general surgeon would do well at this location. Contact: R. G. Obermiller, MD, 1501 Main, Woodward, Oklahoma 73801.

**FOR SALE:** Fully equipped office and practice of Internist, all equipment in good order and quality. Jack H. Foertsch, MD, 304 Petroleum Building, Chickasha, Oklahoma 73018. □

*"The history of science, and in particular the history of medicine...is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."*

*—George Sarton, from "The History of Medicine Versus the History of Art"*

**Are there significant  
differences in bioavailability  
and clinical predictability  
among drug products?**

**Opinion**

Results of a questionnaire to  
7,000 physicians:

**44.6%**

Agree there is a significant  
difference

**24.9%**

Believe there is no difference

**30.5%**

Had no opinion

## Are there significant differences in bioavailability and clinical predictability among drug products?

### Teacher of Medicine

Alfred Gilman, Ph.D.  
Wm. S. Lasdon  
Professor & Chairman  
Department of  
Pharmacology  
Albert Einstein  
College of Medicine of  
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

#### The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

#### It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalent

lency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

#### The Problem of Controlling Bioavailability of Generics

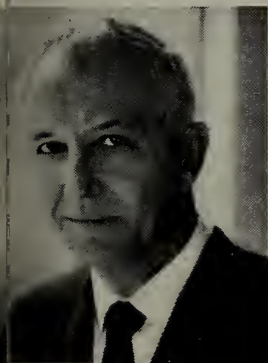
The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

#### Clinical Predictability More Important Than Price

Although the question of price has been greatly exaggerated, it is true that patients can on occasion save money on generic drugs. But you are not going to dare attempt to save money if it jeopardizes patient's health. Let's turn to the example of cardiac glycosides. There has become very promise in recent years, that of cardiac glycosides. They are probably the most toxic drugs we use with respect to the small difference between a maximally effective dose and a toxic dose. When you are dealing with drugs of this type, the first concern must be clinical predictability. At the risk of variations in bioavailability, it would be sheer folly to try to save the patient what might amount to maybe \$10 or \$20 a year. The physician cannot manage his patient unless he is sure that the drug he is prescribing has the same positive effect each time the prescription is renewed. This is especially significant when the patient takes the product, not for months but for the rest of his life.

## Maker of Medicine

J. J. Cavallito, Ph.D.  
Executive Vice President  
Wyeth Laboratories



minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

### Newer Bioavailability Studies Reveal Differences

Although equivalence of different preparations of a substance may be determined by certain physical, chemical or biological characteristics, identity is not always assured even though these characteristics may be described in compendia such as the USP, NF or defined by other specific standards. Moreover, even with equivalent substances, similar pharmaceutical products may be produced by different manufacturers such that these products are bioequivalent or therapeutically equivalent.

### Growing Awareness of Potential for Nonequivalence

Experience increases the awareness of drug substances derived from different sources under different conditions. It should be possible to establish specifications in sufficient detail to minimize the potential for their nonequivalence. However, since there is no general agreement on product therapeutic equivalence would still not be assured even if one could

identify generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalence have appreciably improved.

### Product Selection

#### Based on Patient Response

Improved specifications and standards can better assure the equivalence of drug substances. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the drug product, not the drug substance, that the physician, pharmacist, nurse and patient-customer utilize. How can these indi-

viduals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

### Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

## Opinion & Dialogue

What is your opinion, doctor?  
We would welcome your comments.



The Pharmaceutical Manufacturers Association  
1155 Fifteenth Street, N.W., Washington, D.C. 20005



## MINOCIN® made the difference in just eight days.\*

### Clinical Data:

**Patient:** 47-year-old male.

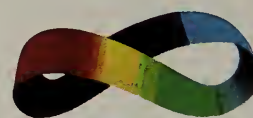
**Diagnosis:** Severe pyoderma, left hand.

**Culture:** *Staphylococcus aureus*, coagulase positive and sensitive to MINOCIN.

**Temperature:** 102° F

**Therapy:** MINOCIN Minocycline HCl Capsules, 100 mg: 200 mg *stat*, 100 mg every 12 hours. Medication began 9/7/71. By fourth day, temperature was normal and pustular lesions considerably improved. Last dose taken 9/14/71.

**Concomitant therapy:** None.†



Semisynthetic

**MINOCIN®**  
**MINOCYCLINE HCl**

Capsules, 100 mg: 2 *stat*, 1 q 12 h.

**Indications:** For the treatment of susceptible infections; e.g., *E. coli*, *D. pneumoniae*. For full list of approved indications consult labeling.

**Contraindications:** Hypersensitivity to any tetracycline.

**Warnings:** The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower total doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has also been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. CNS side effects (lightheadedness, dizziness, vertigo) have been reported, may disappear during therapy, and always disappear rapidly when drug is discontinued. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while taking this drug.

**Pregnancy:** In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. **Newborns, infants and children:** All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg./kg. every 6 hours, demonstrated a decrease

in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class.

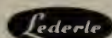
**Precautions:** Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Because tetracyclines have been shown to depress plasma prothrombin activity, patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.

**Adverse Reaction:** GI: (with both oral and parenteral use): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. **Skin:** maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). **Renal toxicity:** rise in BUN, dose-related (see "Warnings"). **Hypersensitivity reactions:** urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. **Blood:** hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia. **CNS:** (see "Warnings.") When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

**NOTE: Concomitant therapy:** Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that absorption of MINOCIN is not notably influenced by foods and dairy products.

\*Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracyclines are not the drugs of choice in the treatment of any staphylococcal infection.

†Case Report, Clinical Investigation Department, Lederle Laboratories.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965 12-20 436-2

## *To-And-For*

PROBLEM-ORIENTED record keeping is gaining popularity in all areas of medical practice. It deserves acclaim as a significant contribution to the resources available to physicians who are searching for ways to improve their care of patients. The problem-oriented record serves to remind the physician of the nature and significance of his patient's problems, thus decreasing the likelihood that such problems will be forgotten and unresolved during the complex and seemingly endless process of clinical evaluation and investigation.

A useful addition to the problem-oriented record might be a "to-and-for" list wherein each of the elements involved in the problem-solving procedure is identified as something done *to* or *for* the patient. The effects of such a tally might be surprising and profound, and might cause a dramatic improvement in the efficiency, economy and effectiveness of physicians' services.

With increasing momentum, recent trends in medicine have emphasized doing things *to* patients rather than *for* them. Virtually every week there appears a new gadget; a new gimcrack with dials, knobs, blinking lights and beepers; a new "diagnostic tool" at the end of a long tube or wire; a new laboratory test for some never-encountered "clinical entity." Cardiologists feel compelled

to intubate coronary arteries and chase patients up and down stairs and along treadmills. Obstetricians invade the fetal environment and thirst for amniotic fluid. Pediatricians pre-empt nature's immunogenic processes and contrive ways to alienate mothers and neonates (formerly known as newborn infants, readily recognized as human beings). Surgeons are becoming organ-finders and fabricators. In short, the physician of today, especially the "highly-trained-specialist," takes for granted that it is necessary to do things *to* his patients before (or even instead of) doing things *for* them. Chin-rubbing contemplation, question-asking, listening, thinking and consoling seem to be *passé* techniques. Yet these are frequently the only things which produce something *for* the patient. They produce solutions to problems and rarely, if ever, produce more problems as do many of the things done *to* patients.

Certainly it would be foolish to ignore, and unjust to deprecate, the valuable contributions to health care made by modern devices and procedures. But it would be more foolish to lose sight of the fact that the physician's primary responsibility is to find solutions to his patients' problems.

Keeping score in a "to-and-for" tally as part of the problem-oriented record might improve our vision. And our image. And our patients' welfare.

—MRJ



I approach the end of my term as President of OSMA with considerable nostalgia. A sense of relief is mixed with a feeling that I am going to miss the intense activity associated with the Presidency together with a busy practice.

I would hope that every member of the society would aspire to be President, the good features of which far outweigh the bad. In the good column, I would place high on the list the multiple new friendships with the doctors around the state, the many interesting problems involving medicine that arise almost daily, and the satisfaction of solving some of them. In the bad column, I would place the numerous sleepless nights of anxiety over the tangled affairs of medicine and medical education in our country, the occasional feeling of being overwhelmed, and most important leaving behind problems of medicine that are insoluble or beyond my abilities to solve.

The Presidency requires a wide variety of talents: work with all the constituent county societies, travel around the state, many many opportunities to make speeches, numerous public appearances, monthly chances to express your thoughts in print in *The Journal*

TV appearances, constant press interviews, and presentation of background material to the press. In addition it includes intimate involvement in state wide political activities, firstly an active part in the election campaign, then very many plans and activities when the legislature is in session. Also work with and attendance at committees and councils of OSMA, work with and reports to Board of Trustees, constant work with and consultations with staff, work with and attempts to influence AMA policy, contacts with national political leaders, and many more. Especially rewarding is the occasional ability to aid or help a fellow physician who is in distress, puzzled, or behind the eight-ball. In short, the presidency is a challenge intellectually, socially, economically, emotionally, and physically. But, to me, life's greatest joys stem from life's greatest challenges.

For ten years I have been very active in a medical leadership role, which has been one of the great pleasures of my life. I owe to you my gratitude for allowing me to serve. Physicians have captured my respect for a job well done, for honesty, hard work, and integrity of the highest order. I cannot think of any higher accolade than being allowed for one year to be the principal spokesman for such a group.

*S.R. McCaig, M.D.*

## Examination and Care of the Acutely Injured Hand

EDWARD A. SHADID, MD

*Although acute hand injuries are frequently seen by a variety of physicians, many of the basic tenets in regard to their examination and management are routinely ignored.*

THE HAND is a complicated, beautifully designed structure, all too often treated with disrespect when wounded. While hand injuries are relatively common, they are usually treated initially by emergency room physicians, house officers, or other practitioners with little or no special training in the evaluation and care of the acutely injured hand. Consequently, this paper is directed not toward hand surgeons, but to physicians who see emergency or trauma patients. It is intended as a concise guide rather than an exhaustive treatise.

### EXPLORATION OF THE WOUND

The most natural action of the novice in examination of the wounded hand is to explore the wound. This, in fact, is usually the primary description given to the hand surgeon to whom the patient is referred.

Emergency room exploration of hand wounds is to be condemned. It serves only to further contaminate the wound and to traumatize already-injured tissues. Satisfactory information concerning tendon, nerve, and vascular injury can be obtained by examination of the hand without wound exploration.

In some instances, however, such as infants and children with hand injuries or adults with severely traumatized hands, external examination may be insufficient. In such cases, exploration should be performed in the operating room under tourniquet, sterile conditions, and not in the inadequate confines of the emergency room. Initial external examination is adequate to determine whether surgery is necessary.

### EXAMINATION OF THE HAND

Thorough examination can be done rapidly if one is aware of the basic anatomy of the hand. With this knowledge, inspection of the wound tells one what structures course through that area and hence what parts of the hand may be affected by the injury.

*Innervation.* — Sensation can easily be tested with a pin or similar object. The hand is innervated by the median, ulnar, and radial nerves. Fig 1 (left) shows the distribution of the nerves on the volar aspect of the hand. The ulnar or medial one and one-half fingers are innervated by the ulnar

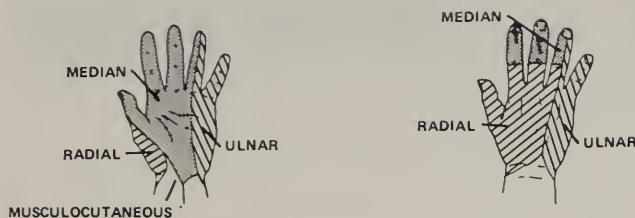


Fig 1. Sensory innervation of the hand.

nerve and the radial or lateral two and one-half fingers by the median nerve. The palm is innervated by the palmar branch of the median nerve. The lateral two-thirds of the dorsum of the hand is innervated by the radial nerve and the ulnar third by the ulnar nerve (Fig 1, right). The proximal phalanges of the radial two and one-half fingers are innervated by the radial nerve and distal to this by the median nerve. The dorsum of the ulnar one and one-half fingers is innervated by the ulnar nerve.

All of the extrinsic muscles of the dorsum of the forearm are innervated by the radial nerve. The flexor carpi ulnaris and the flexor digitorum profundus to the ring and little fingers are innervated by the ulnar nerve. The remainder of the flexor muscles of the forearm are innervated by the median nerve. The intrinsic muscles of the hand are innervated by the median and ulnar nerves. The volar and dorsal interosseous muscles, the hypothenar muscles, adductor pollicis, the lumbricals to the ring and little fingers, and the deep head of the flexor pollicis brevis are innervated by the ulnar nerve. All of the thenar muscles, which include the opponens pollicis, the abductor pollicis brevis and the superficial head of the flexor pollicis brevis, are innervated by the median nerve.

**Intrinsic Muscles of the Hand.**—Examination of the actions of the intrinsic muscles will furnish evidence as to injuries of the median and ulnar nerves (Fig 2). The interosseous and the lumbricals serve to flex the proximal phalanges and extend the middle and distal phalanges. The dorsal interossei abduct or draw index and ring fingers away from the middle finger and the volar interossei adduct or approximate the index, ring, and little fingers. The flexor digiti quinti brevis action is to flex the prox-

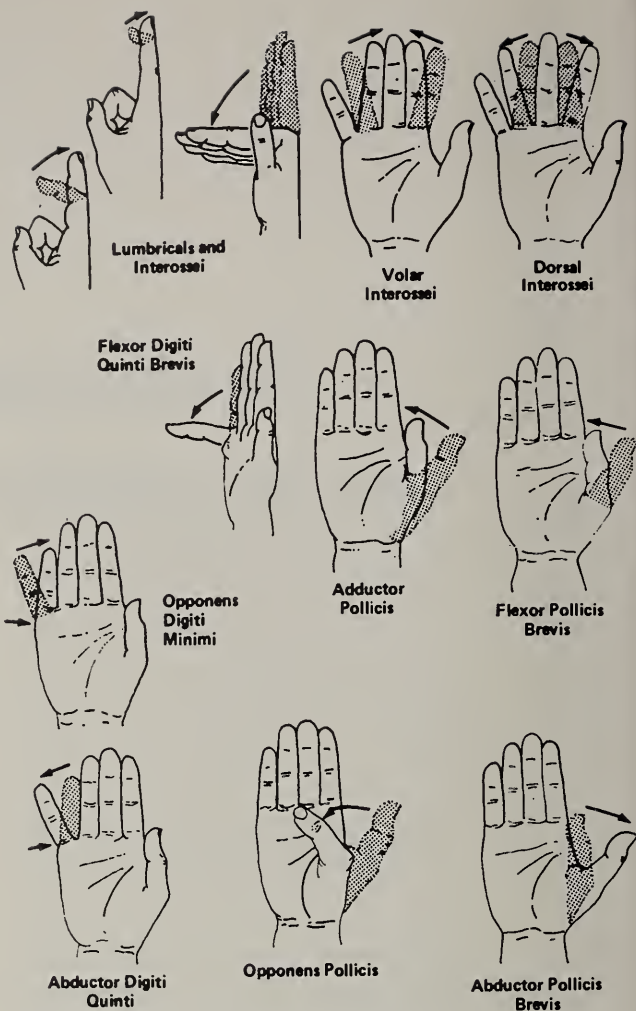


Fig 2. Intrinsic muscles of the hand.

imal phalanx of the little finger. The opponens digiti minimi adducts the little finger. The abductor digiti quinti abducts the little finger and flexes the proximal phalanx. The adductor pollicis adducts the thumb. The flexor pollicis brevis flexes and adducts the thumb. The opponens pollicis action is for opposition or to roll the first metacarpal toward the palm. The abductor pollicis brevis abducts the thumb.

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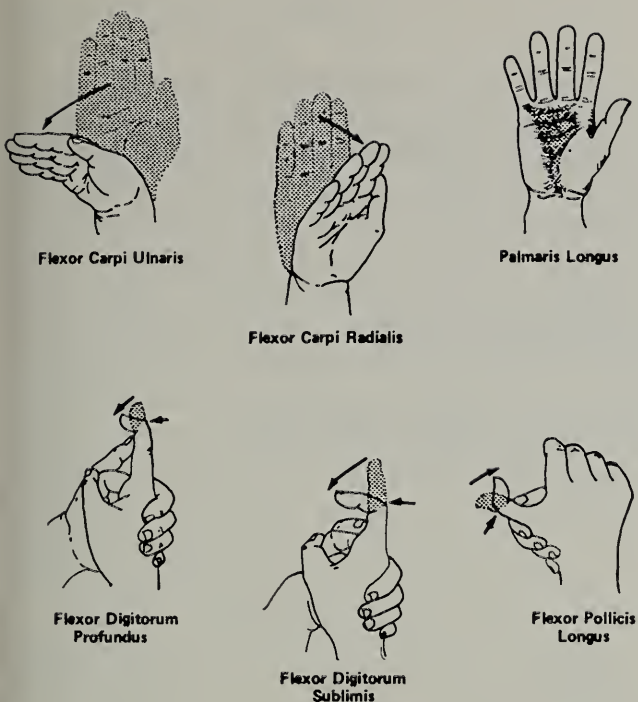


Fig 3. Flexor tendons of th hand.

*Flexor Tendons of the Hand.*—Absence of flexor action of the hand will be secondary to division of the tendon or to division of the nerve prior to innervation of the muscle in the forearm. Tendons may be divided at any level and examination will be made distal to the point of injury (Fig 3). The flexor carpi ulnaris flexes the wrist and acts to deviate the hand ulnarward. The flexor carpi radialis flexes the wrist and causes radial deviation of the hand. The palmaris longus tendon is the most superficial tendon at the level of the wrist. This serves to tense the palmar aponeurosis and can be left unrepaired. The flexor digitorum sublimis tendon flexes the middle phalanx of the fingers. The flexor digitorum profundus tendon flexes the terminal phalanx of the fingers. The flexor pollicis longus tendon flexes the terminal phalanx of the thumb.

*Extensor Tendons of the Hand.*—Extensor function may similarly be impaired as a result of tendon or nerve injury (Fig 4). The extensor pollicis longus tendon acts to extend the terminal phalanx of the thumb. The extensor pollicis brevis tendon extends the proximal phalanx of the thumb. The abductor pollicis longus abducts the thumb by rolling the first metacarpal away from the palm. The extensor carpi radialis brevis and longus tendons extend and to a lesser extent abduct the hand at the wrist.

The extensor carpi ulnaris tendon acts to extend and ulnar deviate the hand. The extensor indicis proprius tendon acts to extend the index finger. The extensor digitorum communis tendons extend the fingers, especially at the proximal phalanges. To a lesser extent they tend to separate the fingers as they extend. After this, they extend the wrist.

*Testing for Gross Function.*—Gross function may be tested with a knowledge of the synergistic action of the wrist and finger tendons (Fig 5). When the wrist is placed in flexion, the fingers extend, and when the wrist is placed in extension the fingers flex. This test is of value in examining the young child or the uncooperative patient.

#### CARE OF THE INJURED HAND

After the examination has been completed, the hand should be placed in a sterile dressing and disposition for the final care should be made. Almost all bleeding can be ade-

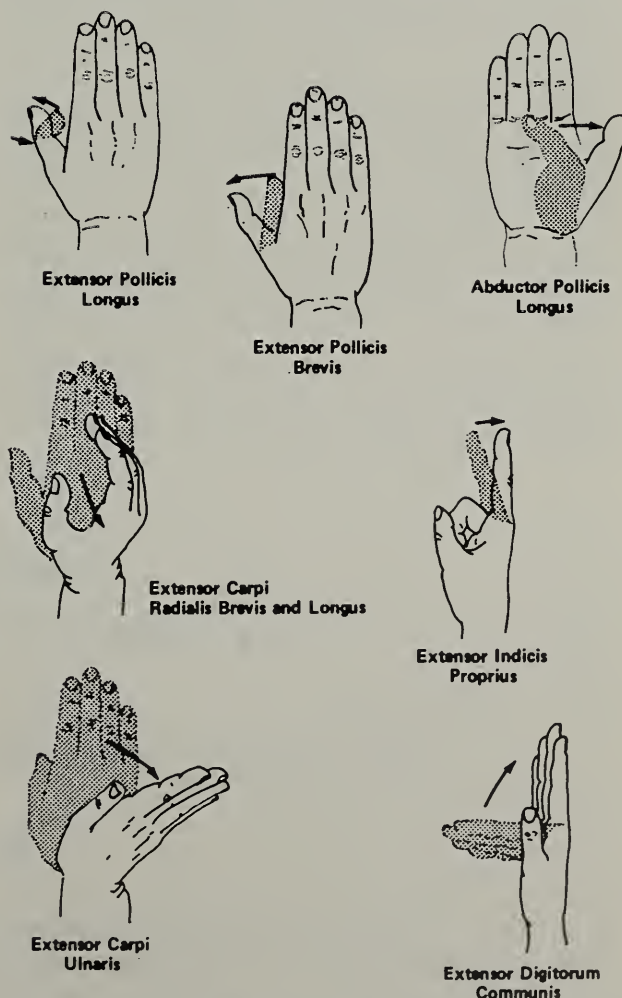


Fig 4. Extensor tendons of the hand.



Fig 5. Synergistic action of the wrist and finger tendons.

quately stopped by a sterile pressure dressing. Attempts to clamp the bleeding vessels in the wound can easily result in severe damage to adjacent nerves or other structures. Moreover, it further contaminates the wound.

Many emergency rooms in this area apparently follow the practice of soaking the injured hand in surgical soap (such as Septisol) while awaiting definitive treatment. Often this is done for considerable periods of time. Unfortunately, this procedure causes further cellular destruction in an already-injured area where any tissue reaction and increased scarring serve to detract from the ultimate therapeutic result.

Having a knowledge of the anatomy of the tendons and nerves of the hand, as well as a method of approximation, does not give one license to repair hand injuries. It is as important to know when *not* to repair a tendon as it is when to repair a tendon. Many individuals hold the opinion that a repair can be attempted, and, if it fails, nothing is lost, since a secondary procedure can probably be performed to improve the result. However, this markedly aggravates the tissue reaction, scarring, etc., so that the effectiveness of any secondary procedure is diminished, if not completely destroyed. As Chase<sup>2</sup> has stated, "Errors of commission are much worse than errors of omission."

Major vascular injuries or skin coverage problems represent the only instances in which primary treatment is necessary. Except for these, any other injury can be treated quite satisfactorily and with equally good results on a secondary basis. In cases where an individual trained in hand surgery is unavailable, the wounds can simply be closed, immobilized, and final treatment can be deferred until the patient can be transferred to the appropriate facility. ☐

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# Evaluation of Patients With Maxillo-Facial Trauma

WILLARD B. MORAN, JR., MD

*Maxillo-facial trauma is on the increase. These injuries are both functionally and cosmetically disruptive and necessitate early and precise care.*

## GENERAL CONSIDERATIONS

THE PATIENT with maxillo-facial trauma must have an immediate general physical evaluation to determine what emergency treatment might be necessary. Such problems as hemorrhage, shock, spinal cord damage or airway obstruction may be present and result in a fatality. Often, the first physician with an opportunity to correct such problems or prevent irreparable damage is the emergency room physician.

Questioning of the patient and/or witnesses to the trauma will follow the precursory evaluation and usually precedes the in-depth examination. If necessary, the history may be taken while the precursory examination and/or treatment is being carried out. The history will help in anticipating the severity of the trauma, locate the site of maximum trauma and in predicting possible complications.

The patient's pre-existing medical condition is very pertinent and should be ascertained. Such conditions as diabetes, seizure disorder or cardiac problems may be related

to the cause of the accident as well as an entity to be dealt with following the trauma.

The circumstances surrounding the injury should be obtained from the patient or witnesses to the accident. One must establish the exact nature of the causative force as well as how far the patient may have fallen, or might have been thrown by the impact. Determination if there was unconsciousness or irrationality at the time of or after the accident is necessary. It is important to know whether the patient wears a denture so that should it have been broken, a fragment might possibly have been aspirated or swallowed.

Careful questioning of the patient frequently will aid in rapid localization of an injured part which at times may present only minimal objective findings.

The examination of the injured individual should always be carried out in a very thorough and orderly manner. This will help avoid over-looking injury which initially may not be obvious, but two to three days later very prominent. The physical examination must be repeated as often as the condition of the patient requires.

Primarily, the patient should be inspected carefully under good light. Visually, examination is made for any swelling, contusion, abrasion, laceration or asymmetry of the facial contour. Bleeding from any orifice may be significant, as may leakage of a clear fluid from the nose or the ear. One should note any mal-alignment or mal-occlusion of

the teeth. One must also observe and check for any muscle paralysis.

In spite of the severity of a facial injury, the patient may be in good general condition and the injury can be repaired promptly. This is true, particularly if there has been no great blood loss or neurological trauma. However, one should not yield to various pressures or be over anxious to rush into treatment of an obvious facial injury prior to complete physical evaluation.

#### SOFT TISSUE INJURIES

The operating room should be used freely for investigating and repairing injuries of any consequence. This area provides ideal conditions for giving proper anesthesia, and has equipment available in the event a complication arises. Basically, good lighting and sterility are more assured in the operating room, thus allowing the best repair possible.

Ideally, maxillo-facial trauma is best repaired as early as possible. Not infrequently though, other physical conditions contraindicate the use of a general anesthesia. Should this be the case, and if there be facial lacerations present, these should be cleansed thoroughly and appropriately closed with meticulous care under local anesthesia. Ideally, one would like to reduce underlying bony fractures prior to a meticulous skin closure, if possible, so that disruption of this closure will not occur when the fragments are later realigned. One can defer closure of facial lacerations for as long as 48 hours without unduly compensating the cosmetic appearance. One should keep in mind that all facial lacerations, regardless of etiology, should be closed primarily with a minimal need for debridement.

A frequent bothersome type of injury seen in the patient with maxillo-facial trauma is the abrasion. In this type of injury, meticulous cleansing of the wound is of primary importance. Foreign material driven into the wound at the time of the injury contributes to the traumatic tattooing of the skin and will result in delayed healing, as well as an unsightly area. Profuse irrigation and literally scrubbing with a

stiff brush may be indicated to remove the embedded foreign material. Ether or other similar compounds may be used in cleansing wounds contaminated by an oily substance.

Oral lacerations are frequently seen in maxillo-facial trauma. These lacerations should be cleansed well with normal saline to remove clots and debris. A thorough search should be made for any fractured teeth, broken dentures, bone fragments or other foreign material in these lacerations. Most small oral lacerations such as those commonly resulting from a tooth perforation heal well without suturing. Another frequently encountered laceration is that noted about the tongue. Most small lacerations of the tongue do not require suturing and heal well, the larger lacerations often necessitate suturing mainly for hemostatic control.

Lacerations involving the parotid gland are of concern due to the proximity of the facial nerve trunk and its branches and the integrity of Stensen's duct. An immediate search for severed nerve endings must be carried out in the patient with a facial paralysis and a laceration about the parotid gland. Likewise, the continuity of Stensen's duct must be assured in any laceration of the parotid and should it be severed, the duct must be closed using a polyethylene tube as a stent.

An immediate facial paralysis associated with a laceration of the face over the parotid gland most often indicates a division of the facial nerve. Once edema occurs, the paralyzed face may not be as obvious and may be overlooked. Paralysis without laceration may be an indication of fracture somewhere in the temporal bone.

#### FACIAL FRACTURES

The facial bones lend themselves well to evaluation by careful palpation. Both sides of the face should be palpated simultaneously so that any asymmetry will be detected. Orbital margins, zygomatic arches, nasal bones, maxilla, and mandible can be readily palpated if marked edema is not present.

Of all facial fractures, the nasal is by far the most common, (37% in a recent study). As the nasal bones have an extremely prominent and vulnerable position one would ex-

pect to see this area frequently traumatized.

Although x-rays may contribute a significant amount of information about a nasal fracture, the diagnosis is usually made clinically. Obviously, the earlier the nose is seen after the trauma, the more deftly the physician can palpate the nasal bones and their position. Physical examination usually demonstrates swelling, tenderness, periorbital ecchymosis, deformity or angulation, and sometimes crepitus. Most frequently, one can elicit a history of epistaxis with nasal fractures.

In order to correlate the physical findings, it is of utmost importance to have the patient's prior history of nasal trauma. A pre-trauma photograph is at times of immeasurable help. It is not uncommon for the patient who has sustained nasal trauma to suddenly become overly conscious of any curve or bump in his nasal contour.

The nasal septum, likewise, has an equal opportunity to be traumatized as does the nasal pyramid. One should recognize the possibility of a septal hematoma in any case of trauma to the nose. As the basis for treatment in nasal fractures is to restore normal contour and airway passage, it is important to check the septum as an undiagnosed hematoma can, in time, cause both airway and cosmetic problems.

The mandible is a very strong structure, but like the nose, is prone to injury because of its exposed position. As one might expect, fractures of the mandible are most commonly caused by external violence.

The most common site of fracture in the mandible is in the region of the condylar process (36%), and in order come the region of the body of the mandible (21%), and the region of the angle (20%), and the region of the symphysis (14%).

Some of the common symptoms and findings in a patient with a mandibular fracture are pain, deformity, crepitation, excessive salivation, fetor ex ore, swelling and discoloration.

On examination, the patient with a mandibular fracture will present mal-occlusion, mobility of the fracture site, dysfunction tumescence at the site of the fracture and abnormal mobility or deviation of the mandible.

Emergency care in the case of the man-

dibular fracture at times may be life saving. In the case of the anterior mandibular fracture, support to the anterior tongue and floor of the mouth is lost, and thus the tongue may occlude the airway. Severe bleeding may also result from soft tissue injury caused by a sharp fragment of the mandibular fracture.

The zygomatic arch is composed of the temporal process of the zygoma, and zygomatic process of the temporal bone. It is a thin, rather weak structure which is fractured easily. This fracture may occur alone or in conjunction with a fracture of the body of the zygoma.

The isolated fracture of the arch usually occurs by direct localized trauma. The second route of fracture is due to the stout body of the zygoma being propelled posteriorly at the time of impact, causing a relative fracture of the arch of the zygoma.

No matter what the cause of the fracture, the symptoms may vary from none to pain on chewing and talking. This latter symptom occurs because of the inward projection of the fractured arch to impede the movement of the coronoid process of the mandible.

Again, this area lends itself to clinical inspection by both vision and palpation. One should not be misled by the observation of no indentation over the suspected fracture site. Those indentations may be initially obliterated by edema only to be seen 72 to 96 hours post injury.

As mentioned, a fracture of the zygoma usually results from direct trauma to the cheek proper. As this bone is thick and solid, rarely is a fracture through the body seen, rather at its articulations with the frontal bone, the maxilla, the maxillary sinus and the zygomatic arch. The typical position of the fractured zygoma is posterior, inferior,

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and medial to its normal position. Obviously, due to its articulations and position, any fracture of the zygoma will involve the floor of the orbit and the maxillary antrum.

Early symptoms other than pain in the traumatized area may be missing. If impingement of the fractured zygomatic arch on the coronoid process has occurred, there will be pain on motion of the mandible. Diplopia may be present initially, or only after the edema of the trauma has subsided. Likewise, the facial deformity may not be as obvious if edema is present at the time the patient is initially evaluated.

The blow-out fracture is a distinct clinical entity and should not be confused with the fracture of the zygoma. The blow-out fracture has a rather classic history in that the trauma is isolated to the area of the orbit. Due to the nature of the trauma, there is a sudden increase in intra-orbital pressure. This force is then transferred throughout the orbit with the resulting fracture occurring in the thin orbital floor. Orbital contents may become entrapped in the fracture line or actually fall into the antrum if total sup-

port is lost.

Typically, this fracture reveals infraorbital nerve anesthesia and possibly decreased mobility of the globe on upward gaze with associated abnormalities being shown on paranasal sinus films.

Fractures of the maxilla, more than the previously described fractures, may go unnoticed visually because of their soft tissue covering. The most constant symptom and physical finding in fractures of the maxilla is mal-occlusion. The most striking finding that is common to most maxilla fractures is the elongation of the midface. The finding of an anterior open bite by itself is not sufficient evidence for a fracture of the maxilla, but it is a common finding.

#### SUMMARY

Patients presenting with maxillo-facial trauma are on the increase. These patients must be thoroughly evaluated for overall trauma before definitive therapy is initiated. Hopefully, the preceding discussion will be of value to those placed in the decision-making role. ☐

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## **EIGHTH OKLAHOMA COLLOQUY ON ADVANCES IN INTERNAL MEDICINE MEDICAL THERAPEUTICS MAY 18th AND 19th, 1973 GUEST SPEAKERS**

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# Continuing Spectrum of Hypermobility Syndromes

WILLIAM P. MUNSELL, MD, FACP

*A recent case with striking hypermobility of joints and hyperelasticity of skin is reported. This case and one previously reported clearly had no other features in common with the degenerative hypermobility diseases. The hypermobility syndromes will be reviewed and contrasts made with the present case.*

SEVERAL SYNDROMES associated with hypermobility have been well documented in the literature. The presence or absence of specific associated features have allowed subdivision of groups of patients with hypermobility into particular syndromes. Awareness of these syndromes has led to the recognition of patients who do not fit into any of these extremes and to which the term "Marfanoid Hypermobility Syndrome" has been applied.<sup>1</sup> The following case report may be classed with the five previously reported cases that do not fall into one of the usual categories, and this is the second reported case occurring in a patient with a normal physical habitus.

## CASE REPORT

KST, a 24-year-old white female, had a history of chronic constipation with four to

five bowel movements per month in the past. Over the last five months she had noted increasing severity of constipation with two to three bowel movements per month. With onset of pain with defecation, and cramping pain which subsided after defecation, she sought medical attention and was referred to the Internal Medicine Clinic.

Review of the past history revealed that the patient had been in previous good health. Her mother had hypertension and her father had peptic ulcer disease. A two-and-one-half year-old daughter was in good health. The patient was on oral contraceptives and denied drug allergy.

Review of systems included otherwise good health with weight fluctuation from 118 pounds to 125 pounds. The patient had always had extreme skin elasticity and joint laxity. As a teen-ager, she found voluntary dislocation of her shoulders to certain advantage in water skiing. Parlor tricks she performed included bending her fingers back on the dorsum of her hands and back bends, coming up between her own legs. She also noted occasional dislocations of her knees. She had worn glasses since age fifteen because of myopia.

Skin elasticity was demonstrated as a primipara when the patient delivered without need for an episiotomy and without laceration. Neither did she develop excessive striae, and she denied excessive bleeding or easy bruisability.

Physical examination revealed a 65 inch tall, 120 pound, 24-year-old healthy appearing white female with blood pressure of 144/88, heart rate 90, and respirations of 16.

From the Oklahoma City Clinic, 301 Northwest Twelfth, Oklahoma City, Oklahoma.

## Syndromes / MUNSELL

The physical findings were unremarkable except for hypermobility of all joints of her hands, wrists, elbows, shoulders, and knees. She did not have dislocated lens, high arched palate, heart murmurs or significant genu recurvatum. Physical habitus other than medium height and slender build included an arm span of 66 inches and normal upper segment—lower segment ratio. The skin was normal except for unusual elasticity. Only three small abdominal striae were found and no scars were present.

Laboratory studies revealed hematocrit 42%, hemoglobin 13.6 gms%, white blood count 7,000 with 30% neutrophils, 70% lymphocytes, 3% monocytes, and erythrocyte sedimentation rate 11 mm/hr. Examination of the peripheral smear revealed normal morphology with an adequate number of normal appearing platelets. Urinalysis, electrolytes, blood urea nitrogen, and blood sugar were within normal limits. Serum calcium was 9.7 mgs% phosphorus 4.2 mgs%, and alka-

line phosphates 1.7 Bodanski units (normal 1.5 - 4.5). Urine for amino acids and particularly homocystine was negative. Chest roentgenogram was also negative.

### DISCUSSION

Joint hypermobility as an unusual ability is a feature admired by most people, emulated by gymnasts, exploited as a curiosity in the "India Rubber Man" of the circus, and fantasized in cartoons as "Plastic Man." Such ligament laxity is most frequently associated with a particular physical habitus: either long and lanky as in Marfan's syndrome<sup>2</sup> and homocystinuria,<sup>3</sup> or normal to short stature as may be found in Ehlers-Danlos syndrome. Arachnodactyly may be found in all. The distinguishing features which serve to differentiate these syndromes are listed in Table I. Joint laxity, however, may be associated with other diseases as found in osteogenesis imperfecta, mongolism, cretinism, Bonnevie-Ullrich-Turner syndrome, and cachexia. The present case had striking joint

TABLE 1

#### DIFFERENTIAL CHARACTERISTICS OF HYPERMOBILITY SYNDROMES

	Marfan's	Homocystinuria	Ehlers-Danlos
Basic Defect	Elastic	Mucopolysaccharide	Collagen
Reported Cases	Over 400 cases	Over 38 cases	Over 150 cases
Inheritance	Dominant	Recessive	Dominant
Musculoskeletal			
Habitus	Tall, long extremities	Tall, long extremities	Normal to short
Joint hypermobility	Moderate	Mild	Marked
Arachnodactyly	Common	Occasional	Rare
Deformities	Common	Common	Common
Muscle hypotonia	Present	Present	Present
Hernias	Common	Occasionally	Common
Cutaneous			
Hyperextensibility	Not described	Not described	Marked
Striae	Common	Occasionally	Common
Ocular			
Ectopia			
Lentis	Probably all cases	All cases	Common
Blue sclera	Common	Not described	Common
Myopia	Common	Common	Common
Cardiovascular			
Vessels	Aneurysms	Thrombo-embolism	Aneurysms
Congenital/acquired heart disease	Common	Rare	Occasional
Pulmonary			
Pneumothorax	Common	Not described	Common
Distinctive Features	Aneurysm dissection, valvular insufficiency, sparse subcutaneous fat	Mental retardation, malar flush, livedo reticularis, osteoporosis/fractures	Aneurysm dissection, skin fragility, gaping wounds, strophic scars, subcutaneous nodules, hemorrhage, acrocynosis
Prognosis	Fair	Poor	Probably good
Average Life Span	Four decades	Two decades	Unknown



Plate I

hypermobility as evidenced by Plates I and II. Ligament laxity with knee dislocation was an occasional inconvenience, while shoulder dislocation was utilized to an advantage in specific activities such as water skiing. The patient's daughter also had evidence of unusual hypermobility of joints.

Skin hyperelasticity is found most frequently in the Ehler-Danlos syndrome, and is not considered a feature of Marfan's syndrome and homocystinuria, although skin defects such as striae are common to all. The hyperelasticity of the patient's skin (see Plate III) was also a source of pride for her, as she noted that no episiotomy was required with childbirth and no lacerations occurred. As noted, no skin fragility, atrophic scars, pseudotumors or cysts typical of Ehlers-Danlos were found in this patient, and she

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had only three striae as a sequela to her pregnancy.

Another feature common to Marfan's and Ehlers-Danlos syndromes, homocystinuria, and to the present case, is myopia. Myopia in Marfan's and homocystinuria is nearly always related to ectopia lentis, while this may or may not be so in Ehlers-Danlos. As noted, the present case did not have ectopia lentis and required glasses at 15 years of age. Features found in all except the present case include skeletal deformities such as scoliosis, pes planus, pectus excavatum or carinatum, high arched palate, defective dentition, skull deformities or genu recurvatum, hernias, muscle hypotonia and cardiovascular abnormalities.

Of incidental interest was the solution to this patient's chief complaint of increasing constipation. In view of the possibility of thromboembolic complications in patients with similar syndromes such as homocystinuria,<sup>3</sup> it was recommended that the patient discontinue oral contraceptive therapy until evaluation was completed. Resolution of the patient's increasing constipation ensued.

Thus, this patient had a normal physical habitus (average height for an American woman and normal proportionment), joint



Plate II

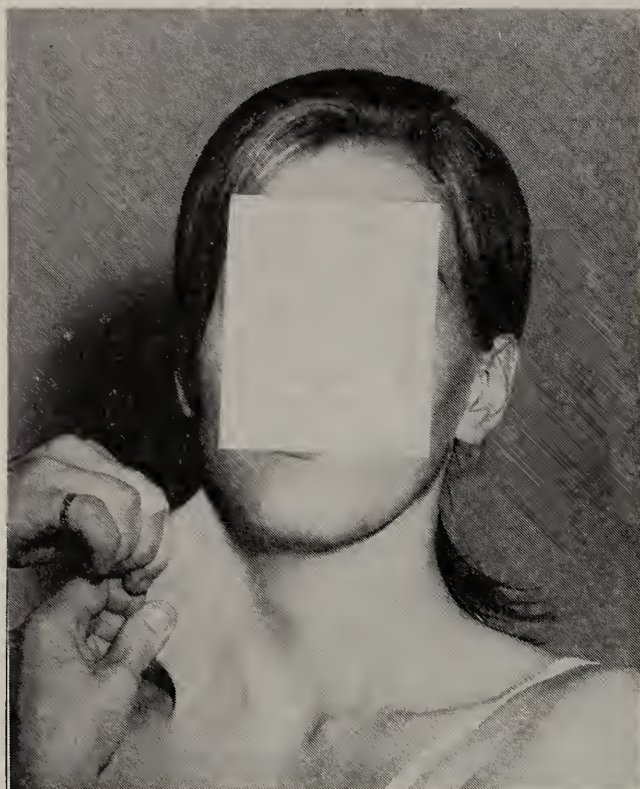


Plate III

hypermobility (more than usually seen in Marfan's syndrome), skin hyperextensibility (without the skin defects commonly found in Ehlers-Danlos syndrome), and no other associated features of either of these syndromes or others, such as homocystinuria. McKusick notes five previous reports of isolated joint laxity and one case of Ehlers-Danlos syndrome without skin fragility, however, that patient did have subcutaneous cysts, skeletal deformities, and cardiac disease. Four cases have been described in which marfanoid habitus and skeletal deformities were present in addition to joint hypermobility and skin hyperextensibility.<sup>1, 4, 5</sup> Only one other case can be found in which only joint hypermobility and skin hyperextensibility were apparent in a patient with normal physical habitus.<sup>6</sup> The recent classification of the four with marfanoid habitus into the Marfanoid Hypermobility syndrome<sup>1</sup> has allowed recognition of the spectrum of hypermobility syndromes. Jager's case and the present case, then, with joint hypermobility and skin hyperelasticity only, and with

normal body habitus would fit into the spectrum between the Marfanoid Hypermobility syndrome and the Ehlers-Danlos syndrome. The number of such cases probably far exceeds those that fit into the classic syndromes, and has not been recognized, either because of disregard by physicians frustrated by the incomplete manifestation of a syndrome, or because of incomplete physical examinations when patients have no reason to direct attention to such areas.

#### CONCLUSION

A patient with striking joint hypermobility, skin hyperelasticity, and a normal physical habitus was encountered. No evidence was found that these features were a part of a degenerative process, and the patient had no other findings in common with Marfan's syndrome, homocystinuria, or Ehlers-Danlos syndrome. Recently, a group of patients that do not fit into these extremes has been recognized, and those with marfanoid habitus have been placed in an intermediate category termed the Marfanoid Hypermobility syndrome. The present case and the one previously described have a place between this intermediate category and the Ehlers-Danlos syndrome. The sparsity of similar cases in the literature results in part from failure on the part of the patient to direct attention to this portion of the physical examination and to features that are not abnormal or disadvantageous for the patient. Hypermobility syndromes would appear to occur in healthy patients as well as patients with deformities or with degenerative diseases and to reflect a continuing spectrum.

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## *The Status of Family Medicine in Oklahoma*

WILLIAM D. MANAHAN, MD  
BARBARA G. COX, BS

*The current program in Oklahoma for training specialists in family medicine is at a critical point. Immediate expansion of the program throughout the state is mandatory for its survival.*

IN 1930, 70% of all physicians in private practice in the United States reported themselves to be general practitioners.<sup>1</sup> In 1950, the percentage had dropped to 32%, and by 1970, it was a mere 16%. This decline in the number of family physicians has left behind a vacuum that organized medicine has not decided how to fill. One result has been that the patient becomes his own diagnostician and decides what kind of specialist to approach. Or he takes the advice of a pharmacist or friend about what constitutes proper treatment. He may follow his own ideas. Other patients, in increasing numbers, take their problems to the hospital emergency room—where the doors are always open and all are received. Obviously, this solution offers little continuity of health

care, and the doctor-patient relationship is less than satisfactory for all concerned.

The famous Millis report on graduate medical education<sup>2</sup> put its finger on the dilemma when it described the position of comprehensive medicine in the medical hierarchy. Within the strictly scientific guilds, the most highly respected members are those who have penetrated most deeply into specialized and restricted domains. Possibly these attitudes are proper among scientists or in the university setting, where the men most honored are those who are extending the frontiers of knowledge. But medicine, although intimately based upon science, is not a science. It is an application of science. The report goes on to mention that there is a kind of arrogance in specialized medicine that runs deeper than such attitudes in other fields. At the same time, it mentions the importance of a doctor being able to evaluate a clinical situation, weigh all the relevant factors, and determine the appropriate course of action with a breadth of view. For example, one ulcer patient may properly be sent to surgery, a second to a psychiatrist, and a third treated by medicine. All three patients should be able to feel confident that the physician who attends them is aware of all the alternatives and selects the one best for them. They should not feel that the physician they see knows or is concerned with only one alternative.

From the Learning Resources Center, University of Oklahoma Health Sciences Center.

Just recently, however, a surprising phenomenon has been taking place. Since the gloomy census figures of 1970, showing general practitioners to fill only 16% of the ranks of medical doctors, a revolutionary movement has been underway. According to *The American Family Physician*,<sup>3</sup> there has been such an upsurge of interest in all aspects of family practice that, in their words, "It's become difficult to publish the correct number of approved family practice residencies because new ones are added every few months." Since the establishment of the American Board of Family Practice two years ago, "there are already more board-certified family physicians than there are board-certified dermatologists." Moreover, it remains the only specialty requiring periodic recertification.

Attitudes among medical students at the University of Oklahoma and elsewhere suggest that the trend to family practice is likely to continue if students are given the opportunity to follow their inclinations. For example, a survey of freshman medical students (class of '75) conducted by the California Medical Association<sup>4</sup> indicates that 72% plan to become primary care physicians, half of them in the field of family medicine. While senior medical students showed a slightly less enthusiastic attitude, the percentage was still high—over 60% expressing the intent to go into primary care. Certainly the career goals expressed by the most recent classes of medical students at the University of Oklahoma Health Sciences Center are consistent with this trend. Large numbers of incoming medical students view themselves more as integral members of an over-all health-care structure than as specialists operating on a solo basis. And this new breed is highly vocal about its desire for involvement in family medicine.

#### BACKGROUND OF THE UNIVERSITY FAMILY MEDICINE CLINIC IN OKLAHOMA CITY

In 1966, Doctor Roger I. Lienke joined the University of Oklahoma Medical Center to inaugurate a new approach to the training of family doctors. As newly appointed Director of the Division of Family Medicine, he proposed that residents electing family practice circumvent the traditional rotations

on the various inpatient services in the University Hospitals and that, instead, they be trained in the delivery of longitudinal care of patients in the clinic, hospital, and home. Accordingly, facilities were made available, and the Family Medicine Program was born. In 1968, construction was completed of a model family medicine clinic, and its staff moved from their temporary quarters into the new building. Here, some of the first resident physicians in family medicine in the United States began their training. This program heralded a movement which was soon to sweep the country.

In February, 1969, the same month that the American Medical Association approved family medicine as the twentieth specialty in American medical practice, the Division of Family Medicine at the University of Oklahoma Medical Center was notified that its residency program, begun in 1968, met all the AMA requirements for graduate medical education in family practice. It was among the 15 initial programs of its kind approved in the United States. Furthermore, it served as a model for other family practice clinics in this country and abroad, as visitors came to study the clinic and use its operation as a model for their own programs.

Despite this seeming success, the Family Medicine Program at the University of Oklahoma Health Sciences Center has reached a

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critical point in its short history. Paradoxically, while opportunities abound for this teaching program to become one of the most outstanding in the nation, it stands in danger of sliding into obscurity. Some reasons for this will be explored below.

THE CURRENT FAMILY MEDICINE PROGRAM  
AT THE HEALTH SCIENCES CENTER

The Family Medicine residency at the University of Oklahoma Health Sciences Center is a three-year program leading toward certification by the American Board of Family Practice. The first year is basically a "rotating internship" divided equally between the University of Oklahoma Hospitals and Presbyterian Hospital. The rotations are: medicine, pediatrics, surgery, gynecology-obstetrics, and one elective. In addition, the first-year resident spends several hours a week familiarizing himself with the patients, personnel, and concepts of the model family practice clinic.

The second two years of the program are based in the model clinic located on the campus of the University of Oklahoma Health Sciences Center. There, the residents, under faculty supervision, assume responsibility for the primary care of their patients. These patients come from a wide variety of backgrounds and represent a cross-section of Oklahoma City—weighted, however, somewhat toward the lower end of the socioeconomic spectrum. Besides offering comprehensive and continuous care to the patient in this model clinic, the residents continue to follow their patients into either the University Hospital or a community hospital, if hospitalization is necessary. Here they continue primary care of the patients under the supervision of the Family Medicine faculty and often also under the guidance of another specialist called in for consultation. About twelve weeks of each year in the resident's second and third year are spent in elective time. Depending on how the resident chooses his electives, he will, in the course of the full three-year program, spend about 18 months in the traditional medical specialties and 18 months in the model clinic setting. In the Family Medicine Clinic, an ac-

tive educational program is conducted in addition to the routine faculty supervision. This program includes chart reviews, observation of other doctors in the clinic, didactic lectures from outside speakers, and consultations within the clinic in such fields as psychiatry, radiology, orthopedics, gynecology, and many other specialties.

The University Family Medicine Clinic has had its problems, however. Primarily, it has been severely limited in the number of residents it has been able to train for family medicine. This, of course, has hampered its ability to increase the number of family physicians in Oklahoma. Oklahomans depend primarily upon the College of Medicine in Oklahoma City to provide them with family physicians. But the educational priorities within the University have not yet been re-ordered to fully accommodate the concept of family medicine. For example, while 24 stipends are currently available to first-year residents (interns), only three of these can be used by Family Medicine. None of the Health Sciences Center's 81 stipends for upper level residents is available to Family Medicine. The University Family Medicine Program has funded the space, facilities, and personnel necessary to carry out its educational mission almost entirely from its own patient income.

OPPORTUNITIES FOR THE DEVELOPMENT  
OF FAMILY MEDICINE IN OKLAHOMA

Although the concept of family medicine training in Oklahoma germinated at the University of Oklahoma Medical Center, the education of young physicians for this specialty is feasible throughout the state. First, however, problems will have to be tackled and solved in the Family Medicine Program at its home base in Oklahoma City, somehow, the numbers of well-trained family physicians leaving the university setting must be increased. To offer Oklahomans continuous, comprehensive, primary medical care, ideally one-third of all graduating medical students should be given the opportunity to enter training in family medicine. In current statistics, this would mean making residencies in family medicine available to 50 of the 150 graduating medical students each year. Otherwise, the ranks of first-echelon

health providers in Oklahoma will continue to be dominated by surgeons, cardiologists, and others in subspecialty fields. Obviously, the obstacles to such a dramatic shift in residency patterns are formidable within the institution—however desirable new patterns may be.

Medical student programs have also been suggested, especially in light of the generally positive feeling expressed by many freshmen toward the area of family practice. It has been suggested that the present curriculum be modified to include some practical training in model family medicine clinics around the state. Medical students who see family practice as their career goal could pursue extra elective studies in behavioral sciences and preventive medicine. The teacher of family medicine would then serve a dual function; that of teacher in the medical school, and that of role model (by actively maintaining his own practice while he taught).

Unfortunately, it is difficult to convince many traditionally hospital-trained doctors that this type of graduate education for comprehensive primary care may be possible. The Millis Report emphasized this point. "Simple rotation among several services in the manner of the classical rotating internship, even though extending over a longer period of time, will not be sufficient. Knowledge and skill in the several areas are essential, but the teaching should stress continuing and comprehensive patient responsibility rather than the episodic handling of acute conditions in the several areas."<sup>2</sup>

In attempting to train family doctors, the faculty at the University Family Medicine Clinic are sometimes at odds with some of the more traditionally oriented faculty in other fields, who feel that the board-certified specialist should train the family medicine resident in all aspects of that specialty. Certainly, both agree that a first-year resident should train primarily within the various specialties. However, the philosophy of the Family Medicine Program is that second- and third-year residents should work primarily under the guidance of the family medicine specialist. With specific clinical problems, of course, the appropriate specialist in that area should be called in for consultation. Thus, a resident would undertake

normal deliveries under the guidance of the Family Medicine faculty, but in all complicated deliveries, a fully qualified obstetrician would be called in—from whom the resident could obtain direct, on-the-spot teaching. In this manner, the resident is trained under circumstances highly similar to those in which he will be practicing medicine all his life.

The long-held belief that residency training should take place within the confines of university teaching hospitals is beginning to change. More and more, residents from orthopedics, internal medicine, and other specialties are rotating full- or part-time with other hospitals which can qualify for educational teaching certification and thereby become part of the university teaching hospital system. This expanded educational concept has certainly added to the total training of doctors. If the concept could be extended to include qualified hospitals in medium-sized cities in Oklahoma, it would not only open up the number of positions available to train primary care doctors, but it would increase the total medical care available in these geographic locales. Many cities in Oklahoma have excellent hospitals, served by a full staff of well-qualified family physicians, traditional specialists, and subspecialists.

Clinics similar to the model University Family Medicine Clinic in Oklahoma City could be established in many of these cities, with a Health Sciences Center affiliation. There, they would function both as training and health-care facilities. As mentioned earlier, the faculty members in family medicine are not only responsible for didactic teaching, but they serve as role models. Therefore, they would see their own patients at least half the time. Incidentally, experience at the Family Medicine Clinic in Oklahoma City has already validated the economic feasibility of such clinics. The income generated by residents and staff has been sufficient to make the unit a financially solvent operation, with only partial outside funding. A ratio of one faculty physician for every one to two residents provides the necessary income while simultaneously accomplishing the educational mission of the clinic.

Approximately thirteen cities in Oklahoma

have populations of 20,000 or more. With the necessary groundwork, there seems no reason why some of the hospitals and physicians in these cities could not become affiliated with the Health Sciences Center in the same way that hospitals and physicians in Oklahoma City and Tulsa are. The present innovations in teaching (e.g., videotapes, programmed television sessions, long-distance television hook-ups) make possible close, regular contact with the central institution. The possibilities for exchange of ideas and of trainees would be limited only by the enthusiasm and effort of the participants. As such affiliations matured and the concept of family medicine became more integral to the practice of medicine in general, clinics similar to the University Family Medicine Clinic could be established throughout Oklahoma to meet the outpatient needs of its communities and surrounding rural areas and to train even more family medicine residents. Not only would this increase the supply of family physicians in Oklahoma, it could significantly upgrade the total quality of medical care available to Oklahomans.

"Quality control" is a final but important subject for consideration when one proposes a statewide network of this sort. To assure high quality patient care and excellent training for residents, family medicine clinics would probably require at least three qualified family doctors in a well-supervised group practice. Preceptors would be board-certified members of the American Academy of Family Practice. Some general practitioners interested in becoming preceptors could choose to take a one- or two-year sabbatical leave for further training in an established family medicine training program. In addition, a type of peer review could be carried out similar to that designed by Peterson *et al*<sup>5</sup> in North Carolina. In the early 1950's,

they evaluated approximately 90 general practitioners in the state and ranked them on a competence scale of one to five. The evaluation was based upon the thoroughness and relevance of the history-taking, physical examination, laboratory work, diagnosis, and treatment.

#### SUMMARY

According to the 1968 Millis Report on Graduate Medical Education,<sup>2</sup> medical schools in the United States must begin training more physicians who are motivated and qualified to give comprehensive, continuing health care. To prepare adequate numbers of young physicians for family medicine, however, more internships and residencies must be made available in medical schools. The family medicine clinic offers an ideal mechanism for such training, as well as providing improved health-care services to the community. With improved communications technology and information exchange, affiliation of community hospitals and clinics with a university medical college is feasible on a statewide basis. Undoubtedly a network of such family medicine clinics could be established in Oklahoma. However, the impetus will probably have to come from physicians, educators, legislators, and concerned citizens in these communities in order to develop the necessary liaison with the central training site at the University of Oklahoma Health Sciences Center. □

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## TREATMENT OF NON-TYPHI SALMONELLOSIS

Although antibiotic therapy reduces the morbidity and mortality of typhoid fever and enteric bacteremias caused by other salmonella serotypes, antibiotics have not proven similarly effective for salmonella gastroenteritis. Despite this, antibiotics are often administered to patients with salmonellosis. Although indiscriminate use should be avoided, antibiotic therapy for salmonellosis would be justifiable if it shortened the duration for fecal excretion of salmonellae after illness, or improved the clinical status of the patient. In untreated salmonellosis, the period of post-convalescent fecal excretion lasts for a few weeks to many months, during which infected persons represent a potential source for the spread of infection to others. If antibiotics shortened this period of excretion, their use would provide a means of interrupting the transmission of the disease, especially in the confined school or hospital environment, and would thus be of value.

A number of superbly designed studies have now demonstrated that antibiotic therapy in acute salmonella gastroenteritis does



## News From The Oklahoma State Department of Health

not modify the clinical illness and *prolongs* rather than shortens the duration of post-convalescent excretion. Early in vitro studies showing sensitivity of many strains of salmonella to a number of antibiotics (including chloramphenicol and ampicillin) have now been shown to correlate very poorly with in vivo antibiotic activity.

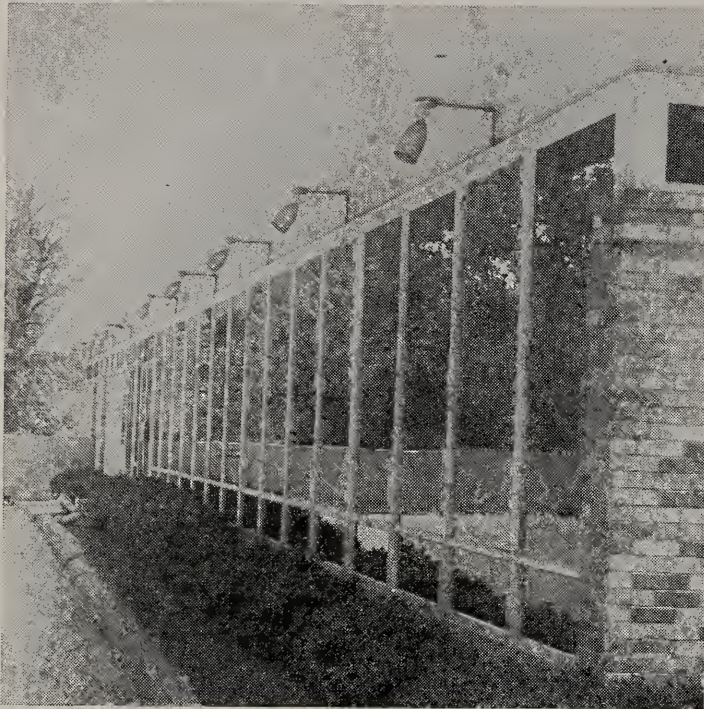
In addition to prolonging post-convalescent excretion, antibiotic therapy helps establish resistant strains of salmonella causing serious difficulties if subsequent systemic infection necessitates aggressive antimicrobial therapy. Transfer of antibiotic resistance does occur among several species of enterobacteriaceae (including salmonella), constituting a definite health hazard.

Salmonella gastroenteritis is generally a mild, self-limited illness. Careful attention to fluid and electrolyte balance virtually assures complete and uneventful recovery. □

New England Journal of Medicine, Vol. 281, No. 12. ..

### COMMUNICABLE DISEASES IN OKLAHOMA FOR FEBRUARY, 1973

Disease	February 1973	February 1972	January 1973	Total to Date	
				1973	1972
Amebiasis	3	3	1	4	4
Brucellosis	—	—	—	—	—
Chickenpox	202	39	14	216	76
Encephalitis, infect .	—	2	1	1	2
Gonorrhea	750	856	968	1718	1615
Hepatitis, infect. & serum	82	66	35	117	108
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal infections	—	1	2	2	1
Meningitis, aseptic	1	3	1	2	4
Mumps	50	40	8	58	71
Rabies in animals	8	14	7	15	22
Rheumatic fever	1	7	1	2	8
Rocky Mt. spotted fever	—	—	—	—	1
Rubella	21	—	2	23	2
Rubella, congenital syn.	—	—	—	—	—
Rubeola	—	—	2	—	1
Salmonellosis	16	7	18	34	10
Shigellosis	3	4	13	16	5
Syphilis	113	125	65	178	206
Tetanus	—	—	—	—	—
Tuberculosis, new active	24	20	22	46	36
Tularemia	1	—	2	3	—
Typhoid fever	—	—	1	—	—
Whooping cough	5	3	2	7	4



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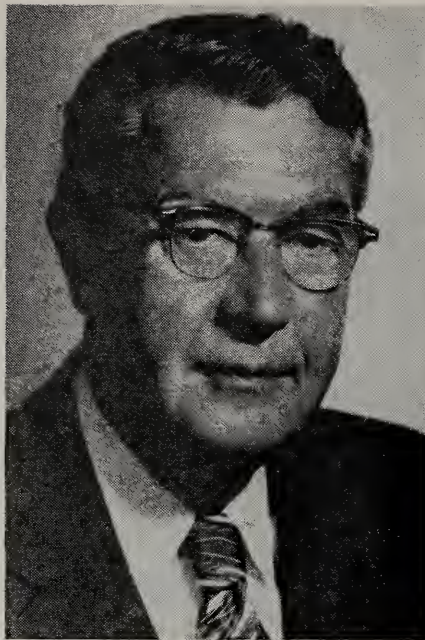
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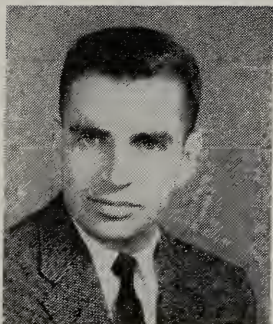
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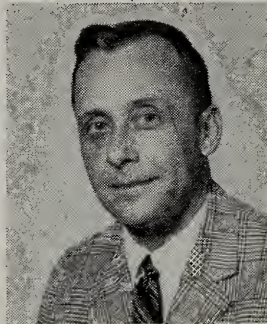


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President of the American Medical Association

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Tulsa  
General Chairman



Richard A. Marshall, MD  
Tulsa  
Program Co-Chairman



John B. Nettles, MD  
Tulsa  
Program Co-Chairman

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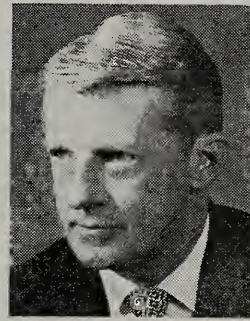
# Oklahoma State Medical Association



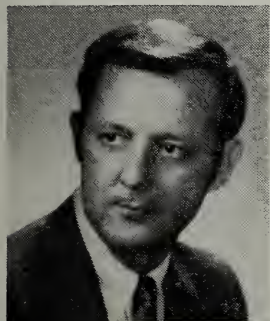
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James W. McDaniel, MD, Chickasha  
Dale Groom, MD, Oklahoma City  
Jake Jones, MD, Shawnee

## **Technical Exhibitors**

The Technical Exhibits of the 67th Annual Meeting of the Oklahoma State Medical Association may be seen on the third floor of the Tulsa Assembly Center.

**Affiliated Computer Systems  
American Pension Investments  
Ayerst Laboratories  
Berkeley Bio-Engineering  
Bristol Laboratories  
Casualty Indemnity Exchange  
Ciba Pharmaceutical Company  
Flint Laboratories  
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\*Merck Sharp & Dohme  
Nationwide Pension Planning**

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E. R. Squibb & Sons  
Syntex Laboratories, Inc.  
Upjohn Company  
\*Washington National Insurance Company  
Wyeth Laboratories  
J. D. Young Co., Inc.**

**\*Contributors to Scientific Program**

## **Scientific And Institutional Exhibitors**

**"Results of Hair Transplantation Using 5 mm  
Grafts"—O'Tar Norwood, MD, Oklahoma  
City, Oklahoma**

**"Esthetic Office Procedures for the Aging  
Face"—Dowling B. Stough, III, MD, Hot  
Springs, Arkansas**

**Oklahoma State Medical Association's Wom-  
an's Auxiliary AMA-ERF**

**Oklahoma State Health Department  
The American Cancer Society**

# Digest of Events

## HOTEL ACCOMMODATIONS

Headquarters for the 67th Annual Meeting will be the Fairmont Mayo Hotel, Tulsa, where a large block of rooms has been reserved for members of the Oklahoma State Medical Association. The Tulsa hotel, as one of the newest members of the Fairmont chain, has recently undergone extensive redecoration, and has now been awarded the Moble Travel Guide Four Star Award. Physicians are requested to make their own reservations by writing directly to the Fairmont Mayo Hotel, 115 West 5th Street, Tulsa, Oklahoma 74101, telephone 918 583-2141—providing the hotel with dates and times of arrival and departure.

## REGISTRATION

General registration will be located in the third floor lobby of the Tulsa Assembly Center. Hours will be from 7:30 a.m. until 5:00 p.m. on Thursday, April 26th, and from 8:00 a.m. until 5:00 p.m. on Friday and Saturday, April 27th and 28th.

Members of the House of Delegates (including the Board of Trustees and General Officers) may register starting at 8:00 a.m. on Thursday morning, April 26th, at the general registration desk. A special registration for members of the House of Delegates will be conducted Thursday evening starting at 6:00 p.m. in the Fairmont Mayo's Crystal Ballroom.

The presentation of delegate's credentials cards will be necessary to receive special badges and portfolios containing the business items to be considered.

## BOARD OF TRUSTEES

The OSMA Board of Trustees will conduct its annual business meeting Thursday morning, April 26th, starting at 9:00 a.m. in the Fairmount Mayo Hotel's Emerald Room.

## HOUSE OF DELEGATES

The OSMA House of Delegates will conduct two sessions during the 1973 annual meeting. The opening session will be held

at 7:00 p.m., Thursday, April 26th, in the Fairmont Mayo Hotel's Crystal Ballroom.

Reference committees will meet starting at 9:00 a.m. on Friday morning in the Tulsa Assembly Center's third and fourth floor assembly hall area. Reference committee meetings are open to all members of the association.

The closing session of the House of Delegates is scheduled for 8:30 a.m. Saturday morning in the Tulsa Assembly Center Hall.

All items of business introduced during the opening session on Thursday will be referred to one of the four reference committees for hearings on Friday morning. Open hearings are held on all of the reports and resolutions to be considered by the House of Delegates.

Following the hearings, the reference committees will prepare reports containing recommendations for presentation to the House of Delegates at its closing session Saturday morning. Election of officers will also be held during the closing session.

## SCIENTIFIC SESSIONS

The scientific and educational portion of the annual meeting will be held in the Tulsa Assembly Center Hall all day Thursday, Friday and Saturday.

A complete program appears in this issue of *The Journal*.

## FREE PICNIC LUNCHEON

The free picnic luncheons that have proved so popular at past OSMA Annual Meetings are back again this year. Ham, pastrami, corned beef, beer, soft drinks, assorted relishes, baked beans and other side dishes will top off a picnic type spread. Both the Friday and Saturday luncheons will be served in an informal atmosphere in the Assembly Center's third floor lobby.

The Friday picnic luncheon will be hosted by the Washington National Insurance Company.

## GASLIGHT PARTY

Dixieland music, go-go girls, old movies, peanuts and popcorn will be just a few of the features of the OSMA Gaslight party to be

held at 8:00 p.m. Friday evening in the Fairmont Mayo's Crystal Ballroom. Tickets for the Gaslight Party will be available at the registration desk.

#### **AMA PRESIDENT**

President of the American Medical Association, Charles A. Hoffman, MD, will speak to a general meeting of physicians and their wives at 1:00 p.m. on Saturday afternoon during the annual meeting. The Huntington, West Virginia, urologist has a long and distinguished record of service to his profession. He is Past-President of his county medical society and state medical association. He was an AMA Delegate and was elected to the AMA's Board of Trustees in 1969. In 1970 he was chosen Secretary-Treasurer of the association. Shortly after taking office as President of the AMA, Doctor Hoffman made an extensive tour of the world to study medical systems in other countries. He is considered an authority on this subject and how such systems could, or could not, be applied to the American Society.

#### **MEDICAL OFFICE ECONOMICS**

Immediately following Doctor Hoffman's talk on Saturday afternoon, a special seminar for physicians will be conducted on the subject of Medical Office Economics. Entitled, "A Consultant's View of Overall Financial Planning for Physicians," the seminar will discuss the professional corporation as a device for building net worth, tax sheltered investments, corporate investments for retirement income, efficiency as an answer to price controls, and a number of other subjects. Two nationally prominent medical business consultants will conduct the program. Thomas E. Zirkle, of Professional Management Associates, Inc., is considered one of the nation's outstanding authorities on professional corporations and is President of the Society of Professional Business Consultants. Roger Harrison, a medical business office consultant from Norman, Oklahoma, is Past-President of the society. Both men are certified business consultants, two of only 34 in the United States.

#### **PRESIDENT'S INAUGURAL DINNER-DANCE**

On Saturday night, April 28th, the annual President's Inaugural Dinner-Dance will be held in the Fairmont Mayo Hotel.

The President's reception will start at 6:30 p.m. in the hotel's Pompeian Court, to be followed at 7:30 p.m. by a dinner in the Crystal Ballroom.

C. Riley Strong, MD, El Reno, will succeed Stanley R. McCampbell, MD, Oklahoma City, as President of the OSMA.

The banquet will feature a gourmet menu complimented by appropriate wines. Following the banquet and inauguration, a dance will be held in the ballroom. Setups will be provided.

Social hour, dinner with wine, inaugural ceremony and dancing—a delightful evening—all for the below cost price of \$12.50. Order your tickets in advance from the OSMA, 601 N.W. Expressway, Oklahoma City 73118.

#### **OB-GYN SCIENTIFIC ASSEMBLY**

This year the OSMA is joining with District VII of the American College of Obstetricians and Gynecologists to sponsor a two-day scientific assembly during the annual meeting. The assembly will start at 8:00 a.m. on Thursday morning, April 26th, and will continue through Friday. Topics to be discussed will include Obstetrics Emergencies, Nutrition During Pregnancy, Diabetes in Pregnancy, Habitual Abortion, Fetal Monitoring, Practical Use of the Laboratory in Community Hospitals, and Prenatal Problems.

The sessions on Fetal Monitoring will be conducted by the Department of Gynecology and Obstetrics of the O. U. Health Sciences Center. The latest in fetal monitoring techniques and equipment will be discussed and demonstrated.

Fellows of the American College from the ten-state District VII area will be invited to the two-day assembly. OB-GYN nurses and members of the American Academy of Family Physicians will also receive invitations.

#### **GASTROENTEROLOGY SEMINAR**

A special seminar on Gastroenterology

problems will be conducted on Friday morning, April 27th. Three nationally prominent speakers will discuss "Inflammatory Bowel Disease," "The Child with Chronic Diarrhea," and "Recognition and Management of Functional Gastrointestinal Disorders."

### SPECIALTY SECTIONS

Four medical specialties plan to hold scientific section meetings during OSMA's Annual Meeting. The pediatricians will meet at 1:30 in the afternoon on Friday.

The ophthalmologists, dermatologists and pathologists plan scientific section meetings for Saturday morning.

All scientific meetings will be held in the Tulsa Center Hall.

### ROUND TABLE DISCUSSIONS

On Saturday morning, April 28th, a panel of 15 experts in eight different medical specialties will be available for open discussions and curbside consultations in anyone of the following areas: Nephrology, Hematology, Newborn Problems, Neurology, Cardiology, Gastroenterology, Endocrinology and Allergy-Respiratory Difficulties.

### PHOTOGRAPHY SHOW

OSMA members will compete for photography merchandise prizes. Black and white or color prints should be sent to OSMA office by April 19th.

### EXHIBITS

Primary financial support for the annual meeting will be provided by the technical exhibitors (see roster on page 176). The exhibit area, which will also feature scientific and institutional displays, will be in the Tulsa Assembly Center Hall. Viewing hours will be from 8:00 a.m. until 5:00 p.m. on Thursday, Friday and Saturday.

### SPONSORS

Because of the multitude of activities during the 67th Annual Meeting of the OSMA, there are numerous sponsors for the program.

The two-day OB-GYN Scientific Assembly is jointly sponsored by the OSMA and District VII OB-GYN Nurses, The Oklahoma Chapter of the American Academy of Family Physicians and the Tulsa OB-GYN physicians.

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# PROGRAM

All Events Will Be in Either the Fairmont Mayo Hotel  
or the Tulsa Assembly Center

## Thursday Morning, April 26th

- 7:30 a.m. **GENERAL REGISTRATION.** General registration for both the OSMA Annual Meeting and the OB-GYN Scientific Assembly will be held in the third floor lobby of the Tulsa Assembly Center.
- 8:00 a.m. **OB-GYN SCIENTIFIC ASSEMBLY: OBSTETRIC EMERGENCIES.** This will be the opening session of the OB-GYN Scientific Assembly sponsored by District VII of the American College of Obstetricians and Gynecologists. James A. Merrill, MD, and Warren M. Crosby, MD, of the OU Department of Gynecology and Obstetrics; Dale E. VanWormer, MD, pathologist for Hillcrest Hospital, Tulsa, and Frederick J. Hofmeister, MD, Milwaukee, Wisconsin, will discuss "Coagulation Problems of Blood Transfusion," "Effects of Complications of Labor on the Fetus" and Cardiovascular Problems." The session will be conducted on the stage of the Tulsa Assembly Center.
- 9:00 a.m. **OSMA BOARD OF TRUSTEES.** The annual business meeting of the medical association's Board of Trustees will be held in the Emerald Room of the Fairmont Mayo Hotel.
- 10:15 a.m. **OB-GYN SCIENTIFIC ASSEMBLY: GENERAL SESSION.** John T. Keown, Jr., MD, Tulsa; Carolyn Coulam, MD, Mayo Clinic; and Frederick J. Hofmeister, MD, Milwaukee, Wisconsin will discuss "Diabetes in Pregnancy" and "Habitual Abortion." This will be followed by a question and answer session with all of the morning program participants. The second session will be on the Tulsa Assembly Center stage.

## Thursday Afternoon, April 26th

- 2:00 p.m. **OMPAC BOARD OF DIRECTORS.** The annual business meeting of the Oklahoma Medical Political Action Committee's Board of Directors will be conducted in the Fairmont Mayo Hotel's English Room.
- 2:00 p.m. **OB-GYN SCIENTIFIC ASSEMBLY: GENERAL SESSION.** George H. Jennings, MD, Oklahoma City; Harold A. Kaminetzky, MD, Jersey College of Medicine, New Jersey; Carolyn Coulam, MD, Mayo Clinic; and Roger K. Freeman, MD, Los Angeles, California, will discuss "Nutrition During Pregnancy," "Thyroid Problems in Pregnancy" and "Assessment of the High Risk Pregnancy." The session will be conducted on the stage of the Tulsa Assembly Center.
- 4:00 p.m. **OB-GYN SCIENTIFIC ASSEMBLY: PRACTICAL USE OF THE LABORATORY IN A COMMUNITY HOSPITAL. A**

seven-member panel will conduct a discussion of this important topic. The panel will include Tulsans William F. Thomas, Jr., MD; Don Armstrong, PhD; Bryce Bliss, MD; Robert Fogel, DO; Stan White, MD; and Dale E. VanWormer, MD. Ray Kling, PhD, Oklahoma City, will also serve. This session will also be conducted on the Assembly Center stage.

## Thursday Evening, April 26th

- 7:00 p.m. OSMA HOUSE OF DELEGATES OPENING SESSION.** The opening session of the medical association's House of Delegates will be held in the Fairmont Mayo Hotel's Crystal Ballroom.

## Friday Morning, April 27th

- 8:00 a.m. GENERAL REGISTRATION.** General registration for both the OSMA Annual Meeting and the OB-GYN Scientific Assembly will be held in the third floor lobby of the Tulsa Assembly Center.
- 8:30 a.m. OB-GYN SCIENTIFIC ASSEMBLY: CONCURRENT SESSION #1-FETAL MONITORING.** Topics to be discussed will include "Technical Aspects of Monitoring," "Nurse's Role in Monitoring" and "Physical Basis for Fetal Heart Rate Variations." Speakers will include Warren M. Crosby, MD, of the OU Health Sciences Center; Roger K. Freeman, MD, Los Angeles; Suzanne Rogers, RN, Indianapolis, Indiana; and Robert Goodlin, MD, Stanford University, Palo Alto, California. This session will be held in the third floor meeting rooms of the Assembly Center.
- 8:30 a.m. OB-GYN SCIENTIFIC ASSEMBLY: CONCURRENT SESSION #2-PRENATAL PROBLEMS.** This session will cover such topics as "Prenatal Problems," "Choice of Anesthesia and Analgesia," "Methods of Delivery When Fetal Distress is Present" and "Assessment of Fetal Maturity." Speakers will include William P. Gideon, MD, Donald R. Stout, MD, and M. DeVonne French, MD, all of Tulsa. Richard Clark, MD, of the Department of Anesthesiology, University of Arkansas Medical Center will also participate. Concurrent Session #2 will be held on the Assembly Center stage.
- 9:00 a.m. GASTROENTEROLOGY SEMINAR.** Topics will include "Inflammatory Bowel Disease," Howard M. Spiro, MD, Yale University School of Medicine; "The Child With Chronic Diarrhea," Rainey Poley, MD, OU Health Sciences Center and "Functional Gastrointestinal Disorders—Recognition and Management," H. Worth Boyce, Jr., MD, Gastroenterology Service, Walter Reed Hospital. The seminar will be held in the fourth floor meeting rooms of the Assembly Center.
- 9:00 a.m. HOUSE OF DELEGATES REFERENCE COMMITTEES.** Four House of Delegates Reference Committees will hold open meetings on all business items in the meeting rooms located on the third and fourth floors of the Tulsa Assembly Center.

- 10:00 a.m. OB-GYN SCIENTIFIC ASSEMBLY: CONCURRENT SESSION #1 CONTINUED—FETAL MONITORING.** Topics will include "Diagnosis and Treatment of Fetal Distress," Roger K. Freeman, MD, Los Angeles, and "Fetal Monitoring in a Community Hospital," Warren K. Crosby, MD, OU Health Sciences Center.
- 10:15 a.m. OB-GYN SCIENTIFIC ASSEMBLY: CONCURRENT SESSION #2 CONTINUED—PRENATAL PROBLEMS.** The discussions will include "Prenatal Problems," Ruth Ann Wehmeyer, RN, Hillcrest Hospital, Tulsa; "Obstetric Infections," Jed E. Goldberg, MD, Tulsa, and "Impact of Maternal Nutrition on the Infant," Harold Kaminetzky, MD, New Jersey.
- 11:45 a.m. OB-GYN SCIENTIFIC ASSEMBLY: JOINT SESSION.** Concurrent Sessions #1 and #2 will join to hear a presentation on "Ultrasonic Diagnosis" to be given by Ross Brown, MD, OU Health Sciences Center.
- 12:00 noon FREE PICNIC LUNCHEON.** Pastrami and corned beef sandwiches, assorted side dishes and relishes, plus beer and soft drinks will be served. The luncheon is sponsored by the Washington National Insurance Company and will be served in the third floor lobby of the Assembly Center.

## Friday Afternoon, April 27th

- 1:30 p.m. PEDIATRICS SECTION.** Guest speaker will be Murray Feingold, MD, Department of Pediatrics, Boston, Massachusetts. The section meeting will be held in the meeting room area of Assembly Center.
- 2:00 p.m. OB-GYN SCIENTIFIC ASSEMBLY: SMALL GROUP DISCUSSIONS.** Six group discussions, each to be staffed by several experts on the topic to be discussed, will be conducted. Topics include "Nutrition in Pregnancy," "Problems of the Teens," "Care of the Newborn," "Anesthesia and Analgesia," "Emotional Support During Pregnancy and Labor," and "Nurse's Role in Emergencies." All discussions will be held in the Tulsa Assembly Center.
- 2:00 p.m. OB-GYN SCIENTIFIC ASSEMBLY: FETAL MONITORING ROUND TABLE DISCUSSIONS.** Ten group discussions with experts on the subject of fetal monitoring will be conducted in the third floor meeting rooms of the Assembly Center.
- 1:30 p.m. ONCOLOGY SEMINAR: EMPHASIS BREAST CANCER.** Hugh L. Davis, MD, Associate Professor of Clinical Oncology, University of Wisconsin Medical Center, will be the keynote speaker. A panel with Doctor Davis and four Tulsa physicians, Jane Self, MD, George Schnetzer, MD, G. Lance Miller, MD, and John Lee, MD, will discuss "Treatment of Leukemias and Lymphomas." The seminar will be held in the fourth floor meeting rooms in the Assembly Center.
- 3:45 p.m. OB-GYN SCIENTIFIC ASSEMBLY: SMALL GROUP DISCUSSIONS, CONTINUED.** Six more group discussions will

be conducted by panels of experts on the following subjects:  
"Urinary Tract Problems—Voiding, Infection, Trauma,"  
"Obstetric Emergencies," "Current Trends in Newborn Care,"  
"Expanded Role of the Nurse," "Ambulatory Obstetric Care"  
and "Problems in the Teens."

## Friday Evening, April 27th

- 8:00 p.m. OSMA GASLIGHT PARTY.** A Gaslight Party with Dixieland music, go-go girls, a psychedelic light show, peanuts, popcorn, pretzels and beer will be held in the Fairmont Mayo's Crystal Ballroom.

## Saturday Morning, April 28th

- 8:00 a.m. GENERAL REGISTRATION.** General registration for both the OSMA Annual Meeting and the OB-GYN Scientific Assembly will be held in the third floor lobby of the Tulsa Assembly Center.
- 8:30 a.m. OSMA HOUSE OF DELEGATES MEETING.** The closing session of the House of Delegates will be held in the third floor meeting rooms of the Tulsa Assembly Center.
- 8:30 a.m. OPHTHALMOLOGY SECTION.** Tom Acers, MD, Chairman of the Department of Ophthalmology, OU Health Sciences Center will discuss, "Lesions of the Visual Pathways," "Lesions of the Ocular Motor Pathways" and "Progress Report on the McGee Eye Institute." The session will be held in the fourth floor meeting rooms of the Assembly Center.
- 9:00 a.m. DERMATOLOGY SECTION.** E. Richard Harrell, MD, Professor and Chairman of the Department of Dermatology, University of Michigan Medical Center will discuss "What's Happening in Psoriasis." Other presentations during the meeting will include "Significance of Immunofluorescence Tests in Dermatology," "What's New in Dermatology" and "Sulfones in Dermatology and Mechanism of Action." The section will be held in the third floor meeting rooms of the Assembly Center.
- 9:00 a.m. PATHOLOGY SECTION.** J. Aidan Carney, MB, Mayo Clinic, will discuss "Genesis of Cancer From Certain Non-Malignant Conditions." The section will meet in the third floor meeting rooms of the Assembly Center.
- 10:00 a.m. ROUND TABLE DISCUSSIONS.** The Assembly Center's Stage will be turned into a consultation clinic for problems in any of the following medical areas: Allergy-Respiratory, Cardiology, Endocrinology. Gastroenterology, Hematology, Nephrology, Neurology, and Newborn Problems. Physicians are invited to a cup of coffee and a consultation with a number of medical experts.
- 12:00 noon PICNIC LUNCHEON.** Pastrami and corned beef sandwiches, assorted sides dishes and relishes, plus beer and soft drinks will be served.

## Saturday Afternoon, April 28th

- 1:00 p.m. **A VISIT WITH DOCTOR HOFFMAN.** Charles A. Hoffman, MD, President of the American Medical Association, will open the session with a presentation about the AMA and some of the contemporary problems facing American Medicine. The balance of the time will be spent with the President fielding questions from the audience. The presentation will be in the third floor meeting rooms of the Assembly Center.
- 2:30 p.m. **A CONSULTANTS VIEW OF OVERALL FINANCIAL PLANNING FOR PHYSICIANS.** Two nationally known medical business consultants will discuss the professional corporation as a device for building net worth, tax sheltered investments, corporate investments for retirement income, efficiency as an answer to price controls, and other subjects. Thomas E. Zirkle and Roger Harrison are two of only 34 certified professional business consultants in the United States. Their presentation will be held in the third floor meeting rooms of the Assembly Center.

## Saturday Evening, April 28th

- 6:30 p.m. **PRESIDENT'S INAUGURAL DINNER-DANCE.** The social highlight of the year will begin with a 6:30 p.m. cocktail reception in the Fairmont Mayo Hotel's Pompeian Court. At 7:30 p.m. a gourmet banquet will be served in the Crystal Ballroom. At that time Stanley R. McCampbell, MD, Oklahoma City, will relinquish the Presidency of the association to C. Riley Strong, MD, El Reno.

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# Entertainment Schedule

## PICNIC LUNCHEONS

**12:00 noon - April 27th and 28th - Assembly Center Third Floor Lobby**

Two picnic luncheons will be provided for all physicians attending the OSMA's 67th Annual Meeting in Tulsa. Pastrami, corned beef and ham sandwiches with an assortment of cheese, relishes, side dishes and a

beverage of choice will be available on Friday and Saturday at noon. The Friday luncheon is being sponsored by the Washington National Insurance Company.

## GASLIGHT PARTY

**8:00 p.m. - April 27th - Crystal Ballroom, Fairmont Mayo Hotel**

Dixieland music, go-go girls, old movies and a psychedelic light show will set off the OSMA's lively Gaslight Party. Entertainment by a barbershop quartet, dancing, and plenty of goobers, pretzels and beer is yours for only \$7.50. Setups will be provided for those who B.Y.O.L. Tickets available at the registration desk. Buddy Billen and his orchestra will be the principal entertainment for the Gaslight Party.



Buddy Billen

## INAUGURAL DINNER-DANCE

**6:30 p.m.-April 28th-Pompeian Court and Crystal Ballroom, Fairmont Mayo Hotel**

Beginning with a cocktail party at 6:30 p.m. in the hotel's Pompeian Court and concluding with dancing until midnight, the President's Inaugural Dinner-Dance is the highlight of the OSMA Annual Social Calendar. After the cocktail reception there will be a gourmet banquet with wine service in the Crystal Ballroom. The banquet is to honor

the outgoing President of the OSMA, Stanley R. McCampbell, MD, and the incoming President, C. Riley Strong, MD.

Following the banquet, you are invited to dance until midnight. Setups will be available for those who B.Y.O.L. Tickets should be purchased in advance from the Oklahoma State Medical Association, \$12.50 each.

## ANNUAL MEETING

### TELEPHONE MESSAGE CENTER

ATTENTION:

While you are attending the OSMA Annual Meeting in Tulsa, your emergency calls may be referred to:

**585-8214**

A courtesy message center will be maintained by Southwestern Bell Telephone during the 67th OSMA Annual Meeting in the Tulsa Assembly Center. During the evening your calls should be referred to the Fairmont Mayo Hotel, 918 583-2141.

# **A G E N D A\***

## **House of Delegates Meetings**

### **ANNUAL MEETING—OPENING SESSION**

**7:00 p.m., April 26th, Crystal Ballroom, Fairmont Mayo Hotel, Tulsa**

- |                                     |                                |
|-------------------------------------|--------------------------------|
| I. Call to Order                    | VII. Board of Trustees' Report |
| II. Report of Credentials Committee | VIII. Treasurer's Report       |
| III. Introduction of Guests         | IX. Council, Committee Reports |
| IV. Remarks of Speaker              | X. Introduction of Resolutions |
| V. Nominations for Elections        | XI. Necrology Report           |
| VI. Report of President             |                                |

(Reference Committees will meet at 9:00 a.m. on the third and fourth floors of the Tulsa Assembly Center.)

### **ANNUAL MEETING—CLOSING SESSION**

**8:30 a.m., April 28th, Third Floor, Tulsa Assembly Center**

- |                                     |                |
|-------------------------------------|----------------|
| I. Call to Order                    | IV. Elections  |
| II. Report of Credentials Committee | V. Adjournment |
| III. Reference Committee Reports    |                |

\*Condensed Version, Subject to Modification

### **OFFICERS TO BE ELECTED**

President-Elect (One-Year Term)  
Vice-President (One-Year Term)  
Secretary-Treasurer (Two-Year Term)  
Delegate to the AMA, Position 1 (Two-Year Term)  
Alternate Delegate to the AMA, Position 1 (Two-Year Term)  
Trustees From District 1 through V

# Oklahoma State Medical Association

## 1973 DELEGATES AND ALTERNATES

### SOCIETY

ALFALFA-WOODS	John X. Blender, MD	Ed L. Calhoon, MD
ATOKA-BRYAN- COAL	Alfred T. Baker, MD	Bob L. Bruton, MD
BECKHAM (Roger Mills)	Wm. M. Leebron, MD	H. K. Speed, MD
BLAINE	C. O. Bohlman, MD	Billy D. Dotter, MD
CADDO	Arvin C. Roberson, MD	Edward T. Cook, Jr., MD
CANADIAN	James P. Jobe, MD	Edgar W. Young Jr., MD
CARTER-LOVE- MARSHALL	Edward Koger, MD	George Carlson, MD
	David Mitchell, MD	John Perry, MD
CHOCTAW- PUSHMATAHA	Bill E. Woodruff, MD	Edwin Ellis, MD
CLEVELAND-McCLAIN	Wm. T. Stone, MD	George Long, MD
	James B. Silman, MD	Edwin G. Horne, MD
	Hayden Donahue, MD	Jim L. Haddock, MD
	Robert Sullivan, MD	Virgil Simmering, MD
COMANCHE-COTTON- TILLMAN	Wm. A. Matthey, MD	Walter Wicker, MD
	Robert R. Hillis, MD	Robert H. Drewery, MD
	Jack D. Honaker, MD	Robert L. Shore, MD
	Martin Koehn, MD	O. John Morgan, MD
COOKSON HILLS (Cherokee, Adair & Sequoyah)		
CRAIG-DELAWARE- OTTAWA	David Carson, MD	Donald H. Olson, MD
CREEK	O. H. Patterson, MD	M. S. Bartlett, MD
CUSTER	Ross Deputy, MD	James H. Tisdal, MD
EAST CENTRAL (Muskogee, Wagoner & McIntosh)	M. C. Gephardt, MD	Tom Hodge, MD
	Tom Gafford, MD	Harvey Randall, MD
	Ann Kent, MD	Chester K. Mengel, MD
	Richard Witt, MD	Gary C. Evans, MD
GARFIELD	A. B. Wight, MD	Joe B. Jarman, Jr., MD
	Robt. D. Shuttee, MD	Frank Adelman, MD
	Joseph W. Stafford, MD	Earl M. Robinson, MD
GARVIN	John M. Moore, MD	M. E. Robberson, MD
GRADY	B. C. Chatham, MD	Charles R. Gibson, MD
GREER-HARMON	David D. Fried, MD	Phillip N. Kingery, MD
HUGHES-SEMINOLE	Tom Moffeit, MD	Loyd G. Williams, MD
JACKSON	C. L. Tefertiller, MD	Malcolm Mollison, MD
JEFFERSON	Harold Stout, MD	W. A. Heflin, MD
KAY-NOBLE	Edwin C. Yeary, MD	Edwin E. Fair, MD
KINGFISHER	Ray V. McIntyre, MD	F. C. Lattimore, MD
KIOWA-WASHITA	Roy W. Anderson, MD	M. Wilson Mahone, MD
LeFLORE-HASKELL	R. L. Hampton, MD	Perry T. Taaca, MD
LINCOLN	Harold T. Baugh, MD	Wm. I. Jones, MD
LOGAN	Robert J. Hogue, Jr., MD	Robert E. Ringrose, MD
McCURTAIN	Thomas Rhea, MD	Thomas D. Howard, MD
MURRAY		D. M. Eggenberg, MD
NORTHWEST (Beaver, Dewey, Ellis, Harper & Woodward)	M. K. Braly, MD	Richard H. Burgtorf, MD
OKFUSKEE	Walter M. Moore, MD	Hobart M. Sanders, MD
OKLAHOMA	D. D. Albers, MD	Nolen L. Armstrong, MD
	Martin H. Andrews, MD	A. S. Bailey, MD
	Charles N. Atkins, MD	Paul A. Barrett, MD
	Kent Braden, MD	Wm. G. Bernhardt, MD
	H. T. Avey, MD	M. T. Buxton, MD
	John A. Blaschke, MD	Wm. R. Cleaver, MD
	Jerry L. Bressie, MD	Myron A. Cordum, MD

**OKMULGEE**

**OSAGE**

**PAYNE-PAWNEE**

**PITTSBURG (Latimer)**

**PONTOTOC (Johnston)**

**POTTAWATOMIE**

**ROGERS-MAYES**

**STEPHENS**

**TEXAS-CIMARRON**

**TULSA**

**WASHINGTON-  
NOWATA**

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R. Leroy Carpenter, MD  
Charles W. Cathey, MD  
Charles E. Delhotal, MD  
John W. DeVore, MD  
John W. Drake, MD  
Arthur F. Elliott, MD  
Lynn H. Harrison, MD  
Edmond Kalmon, MD  
Felix R. Kay, MD  
L. O. Laughlin, MD  
David C. Lowry, MD  
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Bobby Gene Smith, MD  
Armond H. Start, MD  
W. David Stuart, MD  
Marion C. Wagon, MD  
Kenneth W. Whittington, MD  
Neil W. Woodward, MD  
Floyd T. Hubbard, MD  
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Lanny F. Trotter, MD  
George Brown, MD  
Joe McCauley, MD  
Orange M. Welborn, MD  
Richard M. Taliaferro, MD  
Leon D. Combs, MD  
Roy O. Kelly, Jr., MD  
Larry I. Young, MD  
Charles N. Talley, MD  
(Not reported)  
Robert D. Grubb, MD  
James E. White, MD  
Roger V. Haglund, MD  
Frank A. Clingan, MD  
Jerry Sisler, MD  
Floyd F. Miller, MD  
Lynwood Heaver, MD  
Harold W. Calhoon, MD  
Emil E. Palik, MD  
Byron W. Steele, Jr., MD  
Bernard E. Guenther, MD  
Clayton E. Woodard, MD  
C. S. Lewis, Jr., MD  
Robert M. Shepard, Jr., MD  
Henry H. Modrak, MD  
Hall Ketchum, MD  
R. W. Goen, MD  
Wm. E. Hall, MD  
Robert K. Endres, MD  
Donald F. Mauritsen, MD  
Robert L. Imler, Jr., MD  
Elvin M. Amen, MD  
John R. Reid, Jr., MD  
Carl H. Guild, MD

William J. Craig, MD  
Gerald Dixon, MD  
D. B. Halverstadt, MD  
J. F. Hammarsten, MD  
James W. Hampton, MD  
Grace Hassler, MD  
Thomas H. Henley, MD  
William E. Hood, MD  
Paul C. Houk, MD  
Wm. E. Hubbard, MD  
Neil B. Kimerer, MD  
Herbert M. Kravitz, MD  
Robert D. Lindeman, MD  
David E. Livingston, MD  
Wm. G. McCreight, MD  
E. Cotter Murray, MD  
William L. Parry, MD  
William R. Paschal, MD  
A. Stanley Porter, MD  
V. M. Rutherford, MD  
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Joseph N. Freund, MD  
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John R. Alexander, MD  
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C. Frank Knox, Jr., MD  
Harold A. White, MD  
John E. Scott, MD  
Orville L. Grigsby, MD  
Jack Drumwright, MD

## **WOMAN'S AUXILIARY**

to the

**OKLAHOMA STATE MEDICAL ASSOCIATION**

# **ANNUAL CONVENTION PROGRAM**

**APRIL 26th, 27th, 28th, 1973**

**FAIRMONT MAYO HOTEL**

**TULSA, OKLAHOMA**

### **PLEDGE**

"I Pledge my loyalty and devotion to the Woman's Auxiliary to the American Medical Association. I will support its activities, protect its reputation, and ever sustain its high ideals."

### **ADVISORS**

**OKLAHOMA STATE MEDICAL ASSOCIATION**

E. Cotter Murray, MD  
Richard E. Witt, MD  
Daniel R. Storts, MD

### **AUXILIARY ADVISORY COMMITTEE**

Mrs. Clifford M. Bassett  
Mrs. George Miller  
Mrs. J. Hartwell Dunn



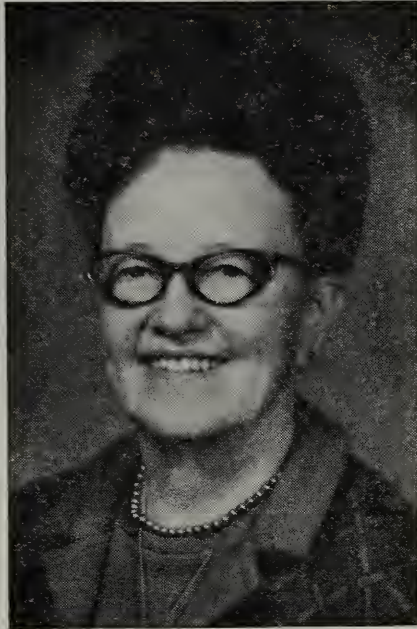
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Nashville, Tennessee  
*President*  
*Woman's Auxiliary*  
*Southern Medical Association*



MRS. ROBERT BECKLEY  
Lock Haven, Pennsylvania  
*President*  
*Woman's Auxiliary*  
*American Medical Association*



MRS. VIRGIL RAY FORESTER  
Oklahoma City, Oklahoma  
*Regional Vice-President*  
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Mrs. DANIEL R. STORTS  
Tulsa  
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Oklahoma City  
*Treasurer*



MRS. W. J. WILLIAMS  
Bethany  
*Treasurer-Elect*

## GENERAL INFORMATION

### REGISTRATION

**Founder's Room—Mezzanine**  
**Fairmont Mayo Hotel**

Mrs. Warren G. Gwartney, Chairman

Thursday, April 26th ..... 1:00 p.m.-5:00 p.m.  
Friday, April 27th ..... 8:30 a.m.-5:00p.m.  
Saturday, April 28th ..... 8:30 a.m.-11:00 a.m.

**Hospitality Room**  
**Founders' Room — Mezzanine**  
**Thursday, Friday and Saturday**

This room will be open during registration hours Thursday, Friday and Saturday for the convenience of guests. Coffee will be served.

Mrs. Tony W. Pratt, Chairman

### CONVENTION COMMITTEE

CHAIRMAN: Mrs. Benjamin G. Gaston

CO-CHAIRMAN: Mrs. James L. Green, Jr.

LIAISON CHAIRMAN: Mrs. John T Keown, Jr.

Courtesy and Hospitality -- Mrs. Tony W. Pratt  
Mrs. Allen B. Eddington  
Mrs. James E. White  
Mrs. Terrell Covington  
Mrs. Douglas C. Hubner  
Credentials ..... Mrs. Chester K. Mengel  
Decorations and Luncheon Mrs. Stanley A. Skaer  
Mrs. Frank Tull  
Mrs. Tom G. Hodge  
Mrs. Eugene M. Henry  
Mrs. David T. Watson  
Timekeeper ..... Mrs. William M. Leebron  
Publicity ..... Mrs. Houston F. Mount  
Mrs. Ralph S. McCants  
Registration ..... Mrs. Warren G. Gwartney  
Past-President's Breakfast Mrs. Richard E. Witt  
Style Show ..... Mrs. Thomas S. Llewellyn  
Mrs. John T. Forsythe  
Mrs. A. Munson Fuller  
Tickets ..... Mrs. John L. Branscum  
Mrs. Frank L. Mahan  
Convention Treasurer ..... Mrs. Robert D. Grubb  
Mrs. Raymond Peeples  
Art ..... Mrs. Richard McKinne

**MEMBERS-AT-LARGE SHERRY PARTY IN**  
**PRESIDENTIAL SUITE 1016**

FRIDAY, APRIL 27th at 4:30 p.m.

### PROGRAM

#### THURSDAY, APRIL 26th, 1973

1:00 p.m.-5:00 p.m.—REGISTRATION AND HOSPI-  
TALITY  
Founders' Room—Mezzanine  
3:00-4:30 p.m.—PRE-CONVENTION BOARD MEET-  
ING  
Emerald Room—Mezzanine  
Tequilla Punch and Hors d' oeuvres

#### FRIDAY, APRIL 27th, 1973

8:00 a.m. PAST-PRESIDENTS' BREAKFAST, Em-  
erald Room — Mezzanine  
8:30 a.m.-5:00 p.m.—REGISTRATION AND HOSPI-  
TALITY, Founders' Room-Mezzanine  
9:30 a.m.—FIRST GENERAL SESSION, Pompeian  
Court — Mezzanine, Mrs. Port Johnson, Presi-  
dent, Woman's Auxiliary to the Oklahoma State  
Medical Association, presiding.  
CALL TO ORDER: Mrs. Port E. Johnson  
INVOCATION: Mrs. David Rose, Ardmore  
PLEDGE OF LOYALTY. Mrs. Floyd F. Miller,  
Tulsa  
WELCOME: Mrs. Raymond E. Peeples, Tulsa,  
President, Woman's Auxiliary to the Tulsa County  
Medical Society  
RESPONSE: Mrs. J. W. Stafford, Enid  
GREETINGS: Stanley R. McCampbell, M.D.,  
President, Oklahoma State Medical Association  
INTRODUCTION OF SPECIAL GUESTS: Mrs.  
Robert Beckley, Lock Haven, Pennsylvania,  
President, Woman's Auxiliary to the American  
Medical Association; Mrs. Virgil Ray Forester,  
Oklahoma City, Oklahoma, Southern Region Vice-  
President, Woman's Auxiliary to the American  
Medical Association; Mrs. Erle Wilkinson, Nash-  
ville, Tennessee, President, Woman's Auxiliary  
to the Southern Medical Association; Mrs. Stan-  
ley R. McCampbell, wife of the President of the  
Oklahoma State Medical Association; Mrs. Jack  
Spears, wife of the Executive Director to the  
Tulsa County Medical Society; Mrs. W. C. Brad-  
ford, founder of the Woman's Auxiliary to the  
Oklahoma State Medical Association  
ROLL CALL BY COUNTIES: Mrs. Michael W.  
Brown, Ardmore  
REPORT OF CREDENTIAL CHAIRMAN: Mrs.  
Chester K. Mengel, Muskogee  
READING AND ADOPTION OF THE MINUTES:  
Mrs. Michael W. Brown

TREASURER'S REPORT: Mrs. Leonard W. Rozin  
GUEST SPEAKER: Mrs. Erle Wilkinson, Nashville, Tennessee, President, Woman's Auxiliary to the Southern Medical Association

REPORTS OF OFFICERS AND COMMITTEE CHAIRMEN: Membership-Mrs. John Williams

DOCTORS' DAY: Mrs. John A. Kienzle

REGIONAL VICE-PRESIDENT: Mrs. Virgil Ray Forester

HEALTH EDUCATION PROGRAMS:

AMA-ERF Mrs. James L. Green, Jr.

Community Health: Mrs. Harvey P. Randall

Children and Youth: Mrs. Jerry L. Bressie

Mental Health: Mrs. Gerald C. Zumwalt

Legislation: Mrs. Scott Hendren

HEALTH EDUCATION PROJECTS:

Health Careers: Mrs. John R. Alexander

International Health Activities: Mrs. Glen L. Berkenbile

Loan Fund: Mrs. Richard A. Clay

Safety and Ecology: Mrs. Don H. Shuller

MEMORIAL SERVICE: Presented by Mrs. J. Hartwell Dunn

REPORT OF NOMINATING COMMITTEE: Mrs. Daniel R. Storts

ELECTION OF OFFICERS:

ADJOURNMENT:

12:30 p.m. LUNCHEON AND STYLE SHOW

Crystal Ball Room on 16th floor

A Mexican Fiesta Honoring Mrs. Port Johnson, President, and Mrs. Daniel R. Storts, President-Elect

Special guests: Mrs. Robert Beckley, President, Woman's Auxiliary to the American Medical Association.

Mrs. Erle Wilkinson, President, Woman's Auxiliary to the Southern Medical Association.

Mrs. Virgil Ray Forester, Regional Vice-President to the American Medical Association.

Fashions from The Bottom Drawer, The Velvet Closet and The Phone Booth with an outstanding collection of jewelry presented by Abe Salle, Ltd., International Jewelry.

INVOCATION: Mrs. Virgil Ray Forester

INTRODUCTION OF GUESTS:

SPEAKER: Mrs. Robert Beckley

ANNOUNCEMENTS:

STYLE SHOW WITH COMMENTARY BY JEAN LEWELLYN

## SECOND GENERAL SESSION POMPEIAN COURT — MEZZANINE

2:30 p.m. SECOND GENERAL SESSION: Mrs. Port Johnson, President, presiding

CALL TO ORDER:

ANNOUNCEMENTS:

REPORTS OF COUNTY AUXILIARY PRESIDENTS (2 Minute reports)

Atoka-Bryan-Coal ----- Mrs. J. T. Colwick, Jr.

Carter-Love-Marshall Mrs. Lloyd G. McArthurs

Cleveland-McClain Mrs. Harold R. Belknap, Jr.

Comanche-Cotton --- Mrs. Frank R. Michener

Custer----- Mrs. Douglas Weatherman

East Central ----- Mrs. Edward H. Fite, Jr.

Garfield ----- Mrs. J. W. Stafford

Grady-Caddo ----- Mrs. R. R. Coates

Kay-Noble ----- Mrs. Carter W. Matthews

Oklahoma ----- Mrs. William B. Renfrow

Okmulgee ----- Mrs. A. L. Buell

Pittsburg ----- Mrs. Murlyn D. Bellamy

Pontotoc-Johnston ----- Mrs. Carl D. Osborn

Pottawatomie ----- Mrs. Leon D. Combs

Stephens ----- Mrs. E. H. Lindley

Tulsa ----- Mrs. Raymond Peeples

Washington-Nowata ----- Mrs. Wayne J. Boyd

WA-SAMA ----- Mrs. John E. Scott

Interns and Residents Wives

----- Mrs. Ken D. German

UNFINISHED BUSINESS:

NEW BUSINESS:

INSTALLATION OF OFFICERS: by Mrs. Robert Beckley

PRESENTATION OF GAVEL AND PIN

INAUGURAL ADDRESS: Mrs. Daniel R. Storts

ELECTION OF DELEGATES TO NATIONAL CONVENTION

ANNOUNCEMENTS

ADJOURNMENT

5:00 p.m. Sherry Party honoring Members-at-Large in President's Suite 1016—Mrs. John W. Williams and Mrs. Bryce Petrie, Hostesses.

## SATURDAY, APRIL 28th, 1973

8:30 a.m. POST-CONVENTION CONTINENTAL BREAKFAST FOR NEW BOARD: Mrs. Daniel R. Storts, Hostess—Emerald Room-Mezzanine

9:00 a.m. POST-CONVENTION MEETING OF NEW BOARD: Mrs. Daniel R. Storts, President, Presiding.

New officers, chairmen, county presidents and councilors are expected to attend.

12:00 Noon—PICNIC LUNCH with husbands—Assembly Center's third floor lobby.

1:00 p.m. Charles A. Hoffman, MD, President of the American Medical Association will speak—Third floor meeting rooms, Tulsa Assembly Center.

6:30 p.m. PRESIDENT'S INAUGURAL RECEPTION—Pompeian Court - Mezzanine—Stand-up Cocktail party

7:30 p.m. PRESIDENT'S INAUGURAL DINNER-DANCE

## **Alcoholic Work Evaluation Clinic Established**

A work evaluation clinic providing specialized evaluation and care for problem drinkers in which alcoholism is suspected has been established by the Center for Alcohol-Related Studies. The new clinic is primarily directed toward the early treatment of drinkers who still are employed and who have not lost family ties.

The rehabilitation program is a complement to the research programs of the Alcohol Related Studies Center. The center is staffed by members of the Department of Psychiatry and Behavioral Sciences, University of Oklahoma College of Medicine.

The clinic will accept referrals from any physician, but will handle only the problems associated with drinking. For any other medical problems the patient will be referred to their personal physician. In every instance the personal physician will be kept informed of the results of the evaluation and the progress of treatment.

All patients referred to the clinic will be assigned to a staff physician for psychiatric and psychological evaluation. Psychological tests to assess clinical status and neurophysiological screening to determine the presence of signs of brain damage will be conducted.

The evaluating physician will then review all of the tests and integrate the results with his own findings after psychiatric examination of the patient. A rehabilitation program will then be planned around a treatment modality of outpatient group psychotherapy. Individual psychotherapy and other medical treatment will be recommended when indicated. Counseling with the family is also offered.

In the case of patients who need detoxification or inpatient care, the clinic will assist in arranging private hospital care in the Oklahoma City area and after discharge will coordinate the return of the patient to the program to insure continuity of care.

The clinic itself is located at 1515 North Lincoln in Oklahoma City, a considerable distance away from the University Hospital and the Health Sciences Center.

The clinic will also accept referrals from employers. Anyone wishing additional information on the program should contact Doctor

Alfonso Paredes, MD, at the Center for Alcohol Related Studies, 1515 North Lincoln, Oklahoma City, Oklahoma 73104, telephone area code 405, 235-9434. □

## **FDA Announces Used X-Ray Machine Regulations**

The Food and Drug Administration has issued regulations to require used diagnostic x-ray machines to meet the same standard of radiation safety performance that now applies to new equipment. The new regulation would apply to any machine reassembled and sold after next August 15th. The FDA has estimated that 40 percent of diagnostic x-ray machine sales are in used equipment much of which would not meet requirements of the new federal x-ray standard without substantial modification. The new regulation is aimed at reducing the public health hazard posed by the continued use of older x-ray machinery.

In a related action, the FDA has issued a declaration of policy prohibiting the installation after August 15th of uncertified major components into an x-ray system comprised entirely of major components already certified as being in compliance with the standard. The x-ray standard, issued last year, specifies exposure reduction capabilities that must be incorporated into x-ray machines and components produced after August 15th. General purpose stationary machines, for example, must be capable of restricting the beam to the film or fluoroscope receptor size either automatically or by devices to make the equipment inoperable until the beam is restricted manually.

The used equipment policy specifically would require that any person or company that reassembles, rebuilds, or refurbishes diagnostic x-ray equipment after August 15th must do so in a manner that insures that the equipment will comply with the standard even if the major components of the equipment were made before August 15th. The policy would not apply to equipment that is merely moved and reassembled in a new location without a change in ownership.

## news

Persons wishing additional information on this subject should contact the Bureau of Radiological Health in the Food and Drug Administration, 5600 Fishers Lane, Rockville, Maryland 20852. □

### **Medical Students To Serve in More Preceptorships**

University of Oklahoma medical students will spend more time studying with physician-teachers in rural areas under an expanded and improved preceptorship program. The revised program was announced by Robert M. Bird, MD, Dean of the College of Medicine.

A five-year grant from the Department of Health, Education and Welfare will enable the university to revise its program. In addition to the five-week preceptorship all senior medical students are required to serve, students now may elect additional community practice experience ranging from five to fifteen weeks during which they will be paid a small stipend.

Preceptors, with faculty appointments, are located in 37 cities across the state, most

of them ranging in populations from 2,000 to 23,000. A substantial majority of preceptors are family practitioners, but under the new program, pediatricians and specialists in internal medicine are also serving through participation of the medical college's Departments of Medicine and Pediatrics.

Another innovation in the new program is the appointment of advisors from the full-time medical school faculty, chosen by the preceptor and his student. The advisor will visit the community, confer with students and preceptors and help maintain continuity between the community practice and health sciences center phases of the medical student's education. The Department of Continuing Education is sponsoring library, reference and consultation services to the rural preceptors, their colleagues and the student-preceptees.

All 115 members of the current senior class and a few junior students will have preceptor training of from five to fifteen weeks this year. The new program is designed to accommodate the increasing enrollment which will rise to 145 in the senior class within four years. □

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#### **Contact**

Phil Payne  
Co-Administrator  
(405) 842-3735

OR

**Association Counselors  
528-7755 or 236-4681**

## DOCTOR, WHAT WILL YOU EARN?

It depends, of course, on your age and annual earnings, but the amount can quite reasonably exceed \$400,000.

The total value of all your possessions—property, savings, cars and personal belongings—is only a fraction of what you will probably earn during years of practice. And yet some of you have insured these things and left your earning power unprotected.

Is this logical? Not when you can participate in the . . .

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Now Available to members of the OKLAHOMA STATE MEDICAL ASSOCIATION

- . . . gives you individual coverage at low group rates.
- . . . offers flexible waiting periods at your option.
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For Additional Information, call or write

**Terry Banker or Rodman A. Frates**  
**C. L. FRATES & COMPANY, INC.**

4010 North Youngs      P. O. Box 12446  
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## Pesticide Poisoning Cases Reported

During 1972, 371 pesticide cases were reported by 1,210 Oklahoma physicians. A small number of these reporting physicians, 160, saw 371 cases of poisoning, an average of over 2 per year per physician.

The average practicing physician . . . including pathologists and surgeons as well as general practitioners . . . apparently sees about one pesticide poisoning case each four years of practice. A survey conducted by the Office of Pesticide Programs for the Oklahoma State Health Department indicated that Oklahoma physicians generally believe the number of pesticide poisoning cases are remaining about the same.

The number of cases treated in 1972 per physician ranged from none to 25. Some physicians in predominately agricultural areas reported seeing several cases involving symptoms probably caused by chemicals dispensed by commercial crop spraying. However, some physicians in cities also reported

seeing as many as four to 12 pesticide poisoning cases each in 1972.

In a separate survey of hospital emergency rooms, it was found that there may have been about 408 pesticide poisoning cases treated in Oklahoma hospitals in 1972. One hundred fifty-four emergency room questionnaires were sent out, 69 were returned reporting 183 pesticide poisonings.

Information on pesticide poisoning is available from the Pesticides Program, Oklahoma State Department of Health, or the Oklahoma Poison Information Center. The information center operates 24 hours a day at telephone area code 405, 427-6232. □

## Book Reviews

**HIGH ALTITUDE PHYSIOLOGY: CARDIAC AND RESPIRATORY ASPECTS: A CIBA FOUNDATION SYMPOSIUM** in Honour of Professor Alberto Hurtado. Edited by Ruth Porter and Julie Knight, CIBA Foundation, 104 Gloucester Place, London, England. First Edition, hard cover, 196 pp with 42 illustrations. Edinburgh and London: Churchill Livingstone, 1971.

This volume is a collection of papers presented by participants at a conference held in London, 17-18 February 1971, to discuss the effects of high altitude on the heart and blood vessels, chronic mountain sickness effects, and acute pulmonary edema at altitude.

The conferences represented many countries and disciplines, however, unfortunately the USSR scientists were unable to attend.

Each paper presented is followed by a discussion by the various participants. The entire symposium is devoted to high altitude physiology especially honoring the work of Professor Hurtado and his group at their Peru laboratories. The subjects range widely over physiology, biochemistry and pathology in relation to high altitude. This symposium especially highlights the study of chronic adaptation or acclimatization as well as the acute effects of altitude. Chronic mountain sickness is discussed from a cardiopulmonary viewpoint but the studies by the various participants bring out that elsewhere in the body the effects of mountain sickness also should be studied. Several

papers deal with enzyme changes at the cellular level, especially the myocardium, while some papers present the fascinating concept of periarterial cuffing in the lungs and perhaps the sites of origin of pulmonary edema.

A lengthy discussion of exercise and altitude is presented, citing examples of tolerances in the native populations. There are some differences of opinion regarding the concept of chronic mountain polycythemia. In addition to the concepts of pulmonary edema and mountain sickness, the participants also discuss the anatomical changes of the lungs and those of the chemoreceptors related to high altitude.

The symposium demonstrates repeatedly the importance of high altitude physiology studies of the cardiorespiratory system.

The book is very readable and should interest both the physiologist and the clinician interested in high altitude cardiopulmonary problems. For those associated with aviation medicine it will be very useful. *M. Flux, MD.*

**DISEASES OF THE NEWBORN.** By A. J. Schaffer and M. E. Avery. Philadelphia: W. B. Saunders Company, 1971. 919 pp. 346 illustrations. \$27.50

Since its initial publication some eleven years ago, Schaffer's *Diseases Of The Newborn* has been a standard reference for physicians concerned with the newborn. Dr. Mary Ellen Avery joins Dr. Schaffer as co-author of this edition. The book is a comprehensive compendium of neonatal diseases arranged by organ system. Pertinent and instructive photographs and illustrations are widely used along with adequately described case histories. The authors emphasize clinical manifestations and differential diagnosis. Discussion of pathophysiology is short but to the point, and each chapter has an up-to-date list of references. There are also helpful appendices which outline procedures in newborn care and a pharmacopeia for the neonatal period.

The success of this book has been due to the highly readable arrangement combined with the extensive practical comments from the authors' personal experiences.

Those familiar with its predecessors will find the third edition more current in information, but unchanged in style and format. Physicians caring for the newborn will continue to find this book an indispensable part of their libraries. *Harris D. Riley, Jr., MD* □

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**FARMER SEEKING SILENT** or active partner to form joint venture for the purpose of acquiring and operating a cattle ranch. Contact Key A, Oklahoma State Medical Association, 601 N.W. Expressway, Oklahoma City, Oklahoma 73118.

**INTERNAL MEDICINE**—July 1st opening for board eligible or certified internist to associate with multispecialty group. 1972 All-American City — College community—excellent practice opportunity. Inquiries confidential. Contact W. S. Harrison, MD, Chickasha Clinic, P.O. Box 1069, Chickasha, Oklahoma. Phone 1-800-522-8926.

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**OFFICE EQUIPMENT:** Dictaphone, for dictating only, \$200.00; Medco-Sonalator, \$300.00; complete sets of surgical implements, including orthopedic and T & A sets. (Total package of instruments, \$375.00); thermofax, \$200.00; office equipment including examining tables, cabinets, executive

## news

chair set, desks, tables. Contact John E. Horn, MD, JH Bar Ranch, Route 1, Muskogee, Oklahoma 74401. Phone 918 682-5004.

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*"The history of science, and in particular the history of medicine... is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."*

*—George Sarton, from "The History of Medicine Versus the History of Art"*

**Are there significant  
differences in bioavailability  
and clinical predictability  
among drug products?**

**Opinion**

**Results of a questionnaire to  
7,000 physicians:**

**44.6%**

**Agree there is a significant  
difference**

**24.9%**

**Believe there is no difference**

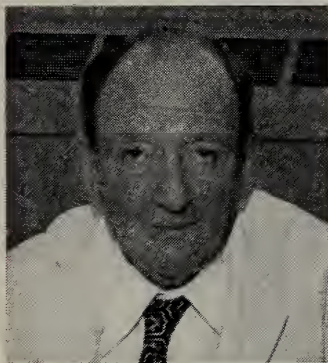
**30.5%**

**Had no opinion**

# Are there significant differences in bioavailability and clinical predictability among drug products?

## Teacher of Medicine

Alfred Gilman, Ph.D.  
Wm. S. Lasdon  
Professor & Chairman  
Department of  
Pharmacology  
Albert Einstein  
College of Medicine of  
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

### The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

### It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalent

lency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

### The Problem of Controlling Bioavailability of Generics

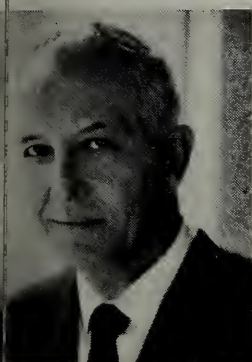
The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

### Clinical Predictability More Important Than Price

Although the question of price has been greatly exaggerated, it is true that patients can on occasion save money on generic drugs. But you are not going to dare attempt to save money if it jeopardizes patient's health. Let us turn to the example of cardiac glycosides. Digoxin has become very popular in recent years, and it is probably the most commonly used drug we use with heart failure. The small difference between a maximally effective dose and a toxic dose is what you are dealing with of this type, the firm must be clinically predictable. At the variations in bioavailability, it would be sheer folly to try to save the patient maybe \$10 or \$20 a month. The physician cannot afford to guess his patient unless he is sure that the drug prescribed has the positive effect each time the prescription is repeated. This is especially important when the patient is on the product, not for the first time but for the rest of his

## Maker of Medicine

J. Cavallito, Ph.D.  
Executive Vice President  
Verst Laboratories



minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

### Newer Bioavailability Studies Reveal Differences

Bioavailability may be defined as a measure of the rate and amount of absorption of a drug substance from its administered dosage form. For several years pharmaceutical scientists have proposed that bioavailability data on presumably equivalent dosage forms provide the best measure of product equivalence—short of adequate clinical trial. In their continued search for shortcuts to the evaluation of product equivalence, medical and pharmaceutical scientists have increasingly relied upon bioavailability characteristics as reflected by blood levels of a drug after its administration to human subjects.

Leading manufacturers now conduct comparative bioavailability studies on their own product dosage forms after production process changes that would have been considered inconsequential a few years ago. This isn't surprising, since there are so many possible differences in production operations that the opportunities for inequiva-

lent generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalence have appreciably improved.

### Product Selection

#### Based on Patient Response

Improved specifications and standards can better assure the equivalence of *drug substances*. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the *drug product*, not the *drug substance*, that the physician, pharmacist, nurse and patient-customer utilize. How can these indi-

viduals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

### Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

though equivalence of ent preparations of a substance may be de by certain physical, cal or biological char- istics, identity is not s assured even though characteristics may scribed in compendia s the USP, NF or de by other specific e standards. More- even with equivalent substances, similar naceutical *products* e produced by differ- manufacturers such these products are bio- lly or therapeutically ivalent.

### Growing Awareness of Potential for Nonequivalence

experience increases drug substances de- from different sources under different condi- it should be possible ablish specifications in ent detail to minimize otential for their non- valence. However, is general agreement product therapeutic valence would still not sured even if one could

## Opinion & Dialogue

What is your opinion, doctor?  
We would welcome your comments.



The Pharmaceutical Manufacturers Association  
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# Integument

Our skin—the human integument—covers us, defines us, protects us. But skin is subject to cuts, burns, abrasions. And infections. Neosporin Ointment fights infection by providing broad antibacterial action against susceptible skin invaders. It contains antibiotics that are rarely used systemically, reducing the risk of sensitization.

**INDICATIONS:** *Therapeutically*, used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in:

- infected burns, skin grafts, surgical incisions, otitis externa
- primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia)
- secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis)
- traumatic lesions, inflamed or suppurating as a result of bacterial infection.

*Prophylactically*, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

**CONTRAINDICATIONS:** Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

**PRECAUTION:** As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

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Each gram contains: Aerosporin<sup>®</sup> brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q.s. In tubes of 1 oz. and ½ oz. and ¼ oz. (approx.) foil packets.



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## Smoking Now Costly As Well As Hazardous

Most people are aware that smoking is harmful to health, but there is now evidence that smokers are nearly twice as likely to be involved in traffic accidents.

According to an article which appeared in the January 31, 1973, issue of the *Congressional Record*, a major insurance company conducted a study in 1968-69, using 3,000 motorists. The company's findings backed up a previous study done by Columbia University showing that a significantly higher ratio of smokers than non-smokers have auto mishaps.

Farmers Insurance Group, the Los Angeles based company that did the most recent study, has extended a special non-smoker's discount to drivers in 20 western and mid-western states. It is anticipated that other insurance companies will follow this example.

Probable causes of smokers being more accident prone may be physical as well as

psychological: Smoke in the eyes, falling ashes and lack of concentration on driving may play a part. An insurance official also speculated that non-smokers are more conservative in their driving than smokers.

But there is another factor — smoking increases carbon monoxide content in the vehicle. Not only is the driver's ability to respond quickly adversely affected, but it can cause night blindness.

In view of this information, smokers who have thus far disregarded the findings of the Surgeon General and the medical community that smoking may cause heart and lung disease may now be convinced that their habit is more costly and hazardous than they had thought.

Smokers should weigh the consequences of their habit against any pleasure they may derive.

First, is it worth risking heart or lung disease? Also, is smoking worth taking the chance of becoming involved in a traffic accident which may cost you anything from increased insurance rates to your very life?  
R. LeRoy Carpenter, MD, MPH □



As I become President of our Oklahoma State Medical Association I do so with Humility, Anxiety and Apprehension. It is a great responsibility to be the President of this organization and to be the chief spokesman for the physicians of the

State of Oklahoma.

In order to do this monumental job I need the help of EACH and everyone of you. An organization like this cannot be run by a few men. It must be the combined effort of all of us.

Our association during the next year and the following years faces tremendous problems with the continuing and constant infringement of the federal government on the private practice of medicine. Right now we have the great controversy of participation or non-participation in PSRO. It is my feeling that there is definitely going to be implementation of PSRO. I want each and everyone of you to keep in mind that this is a federal law. Although we do not agree with it, we will have to obey it. I would much prefer being reviewed by my fellow physicians than I would by the Welfare Department, Blue Cross - Blue Shield or the Aetna Insurance Company. I intend to go to New Mexico and inspect their PSRO process as soon as practical. I also have several good friends in New Mexico that I wish to discuss this process with. I wish all of you to keep all of these things in mind when we have our poll on PSRO.

From all information I can receive there will be definitely some type of National Health Insurance passed by the present con-

gress. This will be another great problem facing our association.

Also, we have many problems in our own state. We must all cooperate in helping stabilize the University of Oklahoma Health Sciences Center. After all, many of us are graduates of this great institution and we must all do our best to keep it a fine institution.

It is my feeling that separation of the University Hospital from the medical school will help the medical school's financial crisis. I have appointed a special committee for liaison with the Governor's Office to help solve the problems at the Health Sciences Center, at the State Penitentiary and with respect to rural health coverage. Governor Hall is extremely interested in the health care of the citizens of Oklahoma and I hope that this new committee will be able to help on these problems.

We have the problem of getting young physicians to go to the smaller communities. We, as an organization, must try to encourage the younger men to "take care of people" and many rural communities are in need of physicians. Our Rural Health Committee should work diligently on this problem.

By the time you read this page some decision will have been made by our legislature for the founding of another medical school in Tulsa and possibly also an osteopathic school in Tulsa. Our organization must be involved by seeing that proper medical education in these institutions meet the standard of quality medical education.

As I close this page, I wish to present a request that all of you cooperate with me to the fullest in trying to solve these problems. If all of us put our shoulders to the wheel, we can solve these problems.

*C Riley Strong M.D.*

# Ulcerating Superficial Gastric Adenocarcinoma Presenting With Massive Upper Gastrointestinal Hemorrhage

WILLIAM P. MUNSELL, MD, FACP

*The relative frequency of superficial ulcerating gastric malignancies has increased ten fold over the last fifteen years. Early discovery of these malignant ulcers is facilitated by fiberoptic endoscopy.*

**G**ASTRIC CANCER is rapidly becoming an uncommon tumor in the United States. However, the prognosis in general with such tumors has remained poor. The unusual presentation of a recent case afforded the opportunity for early recognition of a gastric carcinoma and apparent curative tumor surgery.

## CASE REPORT

Patient J K, a 53-year-old white man, was admitted to the hospital with massive hematemesis. He had been in apparent good health until the night of admission when he awoke at midnight, nervous and nauseated. He vom-

ited dark red blood several times during the next hour. Weakness and dizziness progressed to syncope, and he was brought to the hospital emergency room where he had another episode of hematemesis.

The patient's past medical history included peptic ulcer disease since 1961. He had an episode of significant gastrointestinal hemorrhage in 1962, manifested by melena. He was given three units of blood. He seldom took antacids, adhered to no particular diet, and drank five to six bottles of beer a day. He had taken occasional antacids over the two weeks preceding admission because of epigastric soreness aggravated by nervousness and relieved by eructation. He had a history of mild hypertension but did not take the recommended medications. He also had had an inferior myocardial infarction in 1966, and took Coumadin until January 1970 when he stopped taking it. He denied other significant past history and had no drug allergies.

On arrival at the emergency room in blood-stained pajamas, he was pallid and apprehensive. The heart rate was 120/min; blood pressure 130/90 supine, 90/60 sitting, and respirations were 16/min. He was a moderately obese, middle-aged white male with crusted blood on his lips and blood streaking

From the Oklahoma City Clinic, 301 Northwest Twelfth, Oklahoma City, Oklahoma 73103.

in his oropharynx. Bilateral basilar rhonchi were heard on auscultation of the chest, and examination of the heart revealed only sinus tachycardia. Mild abdominal distention and increased bowel sounds were present, and the liver edge was palpated four centimeters below the right costal margin with an overall span of 12 centimeters. Except for cold, clammy skin, the remainder of the physical findings were within normal limits.

Two liters of normal saline were rapidly infused, and nasogastric gavage with ice water was performed until an almost clear return was obtained. The initial hematocrit was 33%. Transfusion of whole blood was begun and upper gastrointestinal endoscopy was performed. The flexible esophagogastroscope was passed into the stomach, and a large fundic pool of fluid and clotted blood was seen.

A large, deep, clearly demarcated gastric ulcer with a relatively clean base was seen in the mid-antrum on the posterior wall near the lesser curvature of the stomach. Gastric folds radiated to, but not into, the crater, and the crater margins were quite nodular. No active bleeding was noted. Photographs were taken.

After receiving a total of four units of blood, the patient's vital signs became stable and the hematocrit rose to 36%. A liquid diet and frequent antacids were ordered.

On June 25, follow-up endoscopy was performed for the purpose of obtaining a biopsy of the ulcer. At that time, a blood clot was adherent to and obscured the base of the ulcer. The biopsy attempt was unsuccessful because of an obstructed endoscopic biopsy

---

*Since graduating from the University of Texas Medical Branch in Galveston in 1963, William P. Munsell, MD, has been certified by the American Board of Internal Medicine. In addition to his private practice in Oklahoma City, Doctor Munsell is Clinical Instructor in Medicine at the University of Oklahoma Health Sciences Center. He is a member of the American Society of Internal Medicine and a Fellow of the American College of Physicians, the Oklahoma City Clinical Society and the Alpha, Omega, Alpha.*

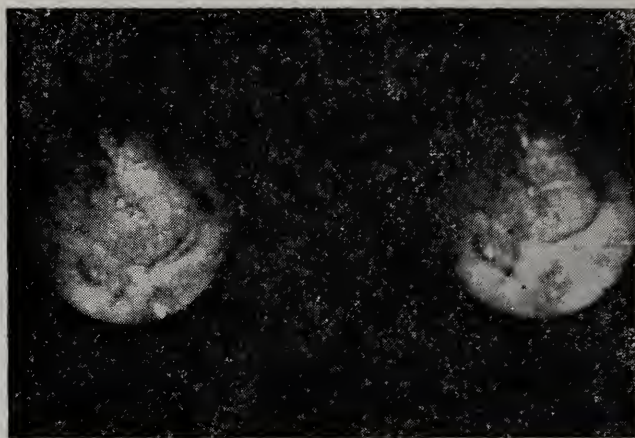


Plate I. The antral ulcer visualized at emergency endoscopy two hours after admission. Note the blunting of folds that radiate to but not into the crater. Nodularity appreciated on the large foreground fold in the picture on the left.

channel. A smaller, distal, antral, benign-appearing gastric ulcer was also noted.

Gastric hemorrhage reappeared on June 29, and after receiving three units of blood, the patient underwent surgical exploration. On frozen section, the mid-antral ulcer was found to be a superficial adenocarcinoma. A radical subtotal gastrectomy with 75% gastric resection and removal of omentum and spleen was performed. Examination of the resected specimen including lymph nodes failed to reveal any extension of the tumor beyond the gastric mucosa.

#### DISCUSSION

Blood loss associated with gastric carcinoma may not be uncommon, but it is rarely

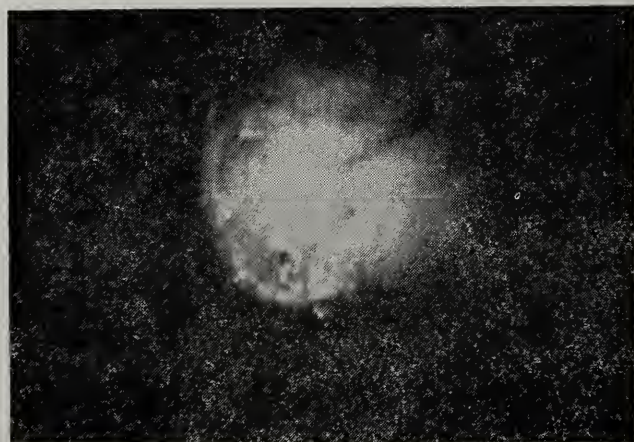


Plate II. The view with the gastroscope (rather than the esophagogastroscope used above) two days later the malignant ulcer is obscured by a blood clot, however surrounding nodularity can be appreciated by multiple highlights in foreground. A new small superficial acute benign appearing gastric ulcer is noted in the upper left.

massive, and any associated anemia is usually attributed to malnutrition.<sup>1</sup> Hematemesis occurring any time during the course of gastric carcinoma is an infrequent event<sup>2</sup> (see Table I), and massive upper gastrointestinal hemorrhage as the presenting symptom of gastric carcinoma is distinctly unusual (see Table II). In a large series of patients with acute upper gastrointestinal hemorrhage, Palmer noted no instance of hemorrhage from carcinoma,<sup>3</sup> while Wilson has found, in a smaller series, 4% to 6% of patients bleeding acutely from gastric carcinoma.<sup>4</sup>

In view of this patient's history, an adequate differential diagnosis was readily available. His previous ulcer disease, complicated by melena and requiring three units of blood eight years prior, certainly made hemorrhage from recurrent duodenal ulcer the most likely single possibility. As Palmer<sup>3</sup> (pp 32) reports, 66% of recurrent hemorrhage with such history will be on this basis. It is pertinent to note that the patient had not bled during four years on anticoagulation therapy and fortunately was not on antihypertensive therapy such as reserpine or potassium salts, which have been associated with gastrointestinal ulceration.<sup>5-7</sup> However, drug-induced gastrointestinal hemorrhage was included in the differential diagnosis in view of his alcohol intake and hepatomegaly. Upper gastrointestinal sources of hemorrhage related to acute and chronic alcoholism include acute hemorrhagic gastritis and bleeding varices. The relative frequencies with which these lesions are encountered in a large series of cases of upper gastrointestinal hemorrhage<sup>3</sup> (pp35) are 15% and 17% respectively. The easy accessibility

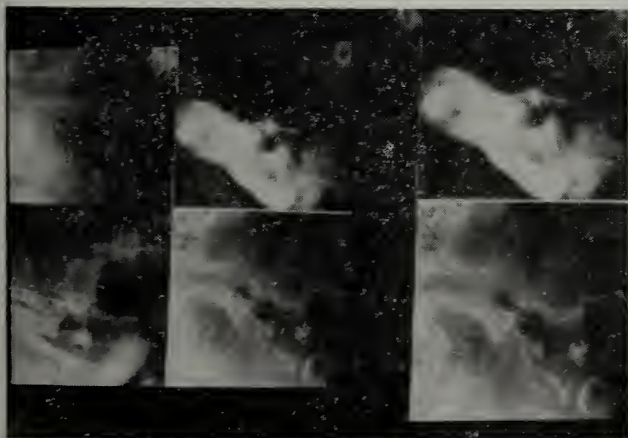


Plate III. The malignant ulcer was readily apparent on UGI series.

TABLE I - Symptoms with Gastric Carcinoma, 1112 patients, Memorial Hospital for Cancer and Allied Diseases, New York, NY<sup>2</sup>

Symptoms	Percent	
	Inoperable	Operable
Weight Loss	85.4	76.1
Pain	68.3	72.1
Emesis	44.8	36.3
Bowel Symptoms	40.3	44.0
Anorexia	31.4	26.9
General Symptoms	27.1	30.1
Dysphagia	22.7	11.5
Nausea	20.7	18.6
Weakness	20.5	14.2
Eructation	18.5	11.9
Hematemesis	6.4	6.2
Regurgitation	7.0	4.0
Early Satiety	4.7	4.0

of the upper gastrointestinal tract to direct examination with fiberoptic endoscopes has been most helpful in detecting the presence of these easily recognized lesions which have seldom yielded to radiographic detection. Certainly, gastric ulcers as in this case may be detected easily with the use of fiberoptic endoscopy.

In addition, the endoscopic features of benign and malignant ulcers (see Table III)<sup>2</sup> (pp 143-150) allow early definitive approaches to therapy and can place an adjunctive approach such as a trial on non-surgical therapy on a more scientific basis.

The endoscopic features apparent in the present case (see Plates 1-3) included characteristics common to both benign and malignant ulcers. The ulcer was approximately two centimeters in diameter, had distinct margins, and a relatively clean base. The

TABLE II - First Symptoms of Gastric Carcinoma, 1075 patients, Memorial Hospital for Cancer and Allied Diseases, New York, NY<sup>2</sup>

Symptoms	Percent	
	Inoperable	Operable
Pain	39.6	46.5
General Symptoms	17.9	18.9
Dysphagia	12.8	8.3
Anorexia	8.4	6.6
Vomiting	7.3	6.5
Weight Loss	6.3	4.6
Eructation	4.2	3.7
Bowel Symptoms	3.7	4.1
Weakness	3.3	4.6
Nausea	2.6	1.4
Hematemesis	1.3	.5
Regurgitation	.8	1.8
Early Satiety	.2	.9

adjacent folds were somewhat edematous on initial endoscopy, and the lesion was small enough at the time of repeat endoscopy so that pliability and local peristaltic activity could not be evaluated. The development of an adjacent acute superficial ulceration two days later might suggest benignity of the initial ulcer. However, this apparent stress ulceration does not really fall into the category of benign multiple gastric ulcers. The key endoscopic features of the initial gastric ulcer in this case included the nodularity of adjacent folds (appreciated as multiple highlights on plate) and the radiation of these folds up to but not into the crater. The endoscopic diagnostic accuracy using such criteria approaches 84% to 90%.<sup>8</sup> Confirmation of the endoscopic diagnosis by biopsy varies between 60% and 80% accuracy,<sup>8</sup> but mechanical failure prevented the complete utilization of the endoscopic capability.

With the recurrence of significant hemorrhage, a definitive surgical approach was made easier by the identification of the source of hemorrhage\* (note the blood clot overlying the malignant ulcer at repeat endoscopy on Plate 2), and by inference as to the character of this lesion. The gastric adenocarcinoma found at surgery was obviously the ulcerated type of superficial gastric carcinomas described by Stout,<sup>7</sup> and falls into Group II according to Borrmann's macroscopic classification of gastric carcinomas.<sup>2</sup> (pp 99-309) (Table IV).

TABLE III - Differential Endoscopic Features of Gastric Ulcer<sup>2</sup> (pp 143-150)

	Benign	Malignant
Ulceration	Distinct margins, usually less than 2 cm, usually clean base	Blending into normal mucosa, frequently greater than 2 cm, usually dirty base.
Adjacent folds	Smooth, radiate into crater, pliable, easily distensible, peristalsis goes through.	Nodular, clubbing, radiate to but not into crater, rigid, non-distensible, no peristaltic waves proceeding through area.
Adjacent mucosa	Erythematous, normal.	Pale.
Presence of other ulceration	Frequent	Unusual.

TABLE IV - Macroscopic Classification of Gastric Carcinoma (Borrmann)<sup>2</sup> (pp 99-390)

- I. polypoid
- II. non-infiltrating carcinomatous ulcer with sharply demarcated, elevated margins
- III. infiltrating carcinomatous ulcer, poorly delineated
- IV. diffuse infiltrating carcinoma

Gastric carcinoma would appear to be a tumor with rather distinct characteristics.<sup>2</sup> (p 2) Implications of epidemiologic studies have included: a great variation among countries in the incidence of gastric carcinoma, a stable male-female ratio, a low incidence in the United States (11.5 per 10,000), a continuing downward trend in the United States, an inverse socioeconomic relationship, a lack of marked urban-rural difference in incidence, and a tendency for a higher incidence in countries in northern latitudes.

Although gastric carcinoma is one of the few malignant neoplasms found in decreasing frequency in the United States, it has a poor prognosis with an overall five-year survival of 7%.<sup>2</sup> (p 345) The superficial localization of the adenocarcinoma in the present case places it in a far more favorable prognostic category. Five-year survival statistics vary from 63% for all ulcerating gastric ulcers with negative nodes to 91% for this particular Borrmann's group confined to the submucosa. The recent observation that superficial gastric malignancies are comprising an ever increasing percentage of the total group of gastric carcinomas (4% of the total in 1955, 11% in 1959, and 34% in 1966)<sup>8</sup> is quite encouraging.

## CONCLUSIONS

A case of massive gastrointestinal hemorrhage secondary to a superficial ulcerative gastric adenocarcinoma was encountered. This was an unusual presentation for a gastric malignancy. However, because of this presentation, an early carcinoma was identified by fiberoptic endoscopy and a probably curative operation performed. The relative frequency of this superficial type of gastric carcinoma has significantly increased over the last 15 years. With the increasing utilization of fiberoptic endoscopy, the previously dismal prognosis for gastric carcinoma should be significantly altered as more

potentially-curable, early lesions are encountered.

Note: The assistance of Mrs. C. A. Hayden in preparing this manuscript is gratefully acknowledged.

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# The Sexually Active Female Adolescent

EDWIN FAIR, MD

*The sexually active adolescent female usually continues her behavioral pattern even after pregnancy. Prescribing contraceptives is preferable to pregnancy or abortion. Education for sexual responsibility and self-discipline is needed.*

RECENTLY, when two of my physician colleagues and I were discussing the results of the abortion survey carried out by the Oklahoma State Medical Association,<sup>1</sup> they suggested that I write down some of my experiences and conclusions about sex education in counseling with the teenager. I followed their suggestion, hence this paper.

In answer to the question on the OSMA questionnaire "Should contraceptive information be given to sexually active minors when requested without parental consent?" 78.5% of us responded *yes*. In answer to the question "Should contraceptives be given to sexually active minors when requested with-

out parental consent?" 59.4% of us answered *yes*. I was among those who voted *yes* in each instance. This reflected a change of attitude on my part. As recently as five years ago, I would have taken a contrary position.

I believe there is a great need for properly planned and well-thought-out programs of sex education. I think this involves more than handing out information and providing contraceptives. Education with a good understanding of human sexuality begins very early in the life of the child. As he is a part of the family, home is the place where he should receive the education concerning human sexuality. Unfortunately, this is often not the case. The church, in my opinion, is a second place where there should be a program of this type carried out. While increasing numbers of churches are so involved, the need is still not being met. In the third place, I think the public and parochial schools should provide information. It is not a matter of shall we provide sex education, because our children and youth are going to receive information of some kind. The main concern is what type of education shall we provide, who will do the teaching, in what manner will it be carried out and what shall be the

content of the teaching? In our experience, parents and educators welcome the leadership and the participation of the medical profession in this effort. As we physicians participate in such programs, we should adequately prepare ourselves for family life education. We should be aware of our own value system and we should be aware of any resistance we have in leading discussion groups in this area. We have learned that these programs are more effective if they are a part of the school program and when they have the support of the community. It is important that the school board and the school administration request our participation. It is also important to have the support of the parent-teacher associations and that participation on the part of the student is voluntary. In addition, we believe the parents should have an opportunity to view the audiovisual aids that are used and to submit questions to the physicians who will be involved in this important educational role in the lives of their children.

Proper sex education is of great importance today because our youth are exposed to a sensual, erotic and degrading aspect of human sexuality through movies, television and various writings that are distributed to them. I do not use the word literature because one can hardly call it literature. There is far more emphasis on the physical and the erotic than on love, commitment and trust. A well-planned program of sex education needs to be factual, but it also needs to help our young people understand that greater sexual fulfillment comes through an experience of two people who live together in mutual trust in a growing companionship and are committed to each other in this relationship. As we continue to place the emphasis on the physical expression of the sex drive, we reduce human sexuality to the level of lower animals, excluding the importance of trust, commitment and love. It seems to me that we human beings are considerably higher in the animal kingdom than dogs and cats because of our capacity to love. Our love grows as we live together with an underlying feeling of total commitment, as we care for each other in an ever-increasingly close relationship with the undergirding feeling that is supportive each to the other in a sense of belonging. It is my opinion that this state

is rarely, if ever, achieved either in premarital or extramarital sexual expression.

As we attempt to understand the struggle with human sexuality in the life of the adolescent today, in addition to one's professional experience we will find many informative articles are appearing in the literature. The *Pediatric Clinics of North America*, August 1972<sup>2</sup>, has a very good symposium on pediatric adolescent gynecology. Morgenthau and Sokoloff<sup>3</sup> contend that what we consider the so-called sexual revolution today actually began about fifty years ago. While we state that each generation of teenagers has been more rebellious and unmanageable than the generation before, we have few statistics to substantiate this idea. The serious study of the adolescent in this area did not begin until approximately 25 years ago. The few research efforts that have been conducted do not support the characterization of the teenager as being wild, reckless and rebellious. Douvan and Gold<sup>4</sup> did a review of adolescent literature in this area and they explained the discrepancy between scientific fact and the general attitude toward the adolescent as being due to observation of two highly selected groups. First, the teenage delinquent and second, the upper middle-class adolescent who seeks professional psychiatric help.<sup>5</sup> A study in 1970 by Christensen and Gregg<sup>6</sup> indicated significantly more college women from restricted as well as liberal subcultures were engaging in premarital sexual intercourse. By this study it was predicted that in 1971 up to 70% of this generation of college women are likely to have had premarital intercourse. Among the early studies concerning sexual activity are those of Kinsey<sup>7,8</sup> and associates. They reported that, of women born after 1900, 50% had had sexual intercourse prior to marriage. They also reported that 90% of the men had had premarital coitus. Burgess and Wallin<sup>9</sup> did a study of more than 650 married couples and reported that 47% of the women had had premarital sexual relations and 58% of the men.

A more reliable source of statistical studies is that of the reported illegitimate births in our country. The number of illegitimate births more than tripled between 1940 and 1965; from 89,500 in 1940 to 291,000 in 1965. During this same period of time, teenage illegitimate births increased from 42,600 to

129,300.<sup>10</sup> We are aware of the fact that there has been a general increase in our total population during this time. This increase has included a greater proportion of youth in the teenage years than formerly.<sup>11</sup> A study made by the Office of Economic Opportunity reveals that the number of out-of-wedlock births in girls between the ages of 15 and 19 years climbed to 158,000 in 1968 and represented 46% of all illegitimate births in the country. While there has been an increase, even though it may not be marked, the fact is that we are dealing with a significant number of teenage girls who get pregnant outside of wedlock.

In the state of Oklahoma in 1971, according to statistics from the State Department of Public Health, 10,000 babies were born to teenage mothers. This represented 25% of all babies born in our state that year. There were 170 babies born to child mothers 14 years of age or younger. Over 50% of the births out of wedlock in Oklahoma in 1971 were by teenage mothers. Between the years of 1960 and 1970, the illegitimacy rate dropped in Oklahoma among all age groups of mothers with the exception of the age group 15 to 19 years. In this age group there was a 55% increase in the rate. In 1971 planned parenthood representatives found five 12-year-old pregnant girls in one housing project in Oklahoma.

It appears that we do need to be concerned about the sexual behavior of our adolescent population.

Important as statistics may be, of even more importance is the changing attitude toward premarital sex that has come about in the minds of our teenage population during the past 25 years. Many of us have seen this changing attitude in our clinical experience. Studies by Gagnon and Simon<sup>12</sup> and by Reiss<sup>13</sup> were made concerning changing attitudes toward premarital sex. It appears that more of our teenagers believe that under certain conditions premarital sexual expression is permissible and at times even desirable. Reiss believes that the shift in American standards has been away from a belief in a strong double standard to a belief of a greater male-female equality and that the shift has been away from powerful re-

pression on the part of many females and some males to a greater acceptance of premarital sexual behavior. This he believes has led to an acceptance by both men and women of premarital intercourse for women. Also, it appears there has been a shift toward "sex with affection" between people from similar backgrounds. So while statistical studies indicate that there has not been a great radical change over the past half century, acceptance of sexual intercourse before marriage has changed because of changing attitudes.

Groves, in unpublished data on his study, says that "almost two-thirds of students feel it is all right to have sex when any two people consent" or "when a couple have dated some and care a lot about each other." This was from a nationwide survey of United States college students. They were asked the question, "Do you approve or disapprove of students having premarital sexual intercourse?" Only 26% of the students did not believe in premarital sex. Suchman<sup>14</sup> found that 70% approved of premarital sexual intercourse. It appears that the changing attitude on the part of our teenage population is exerting a considerable degree of influence on their behavior. Because of my clinical experience, the increase in the number of illegitimate pregnancies in the teenage population and these changing attitudes, I no longer feel that I am a party to sexual promiscuity when I provide contraceptives to the sexually active female in her teenage years. Some of these females may have only one sexual partner and live an active sexual life, while others may be quite promiscuous. I shall give a few brief case histories which include, specifically, teenage girls who come from middle-class or upper middle-class homes. In each instance the family is active in the church of their choice. I have selected these

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*Since his graduation from the University of Oklahoma College of Medicine in 1941, Edwin Fair, MD, has been certified by the American Board of Psychiatry, the American Board of Surgery and the American Board of Thoracic Surgery. Doctor Fair is a Fellow of the American Psychiatric Association and a Fellow of the American College of Surgeons.*

case studies to show that the changing attitude is evident in this socioeconomic group.

The first girl that I shall report I saw in 1960 when she was 14 years of age and in the ninth grade. She was the daughter of parents who were prominent in the community. She was referred by her family physician because of her acting-out behavior which included sexual promiscuity. She had had several sexual partners and had been treated for gonorrhoea. This brilliant young lady achieved considerable growth and at the present time is teaching in one of our major universities. She continued her promiscuous sexual behavior and conceived outside of marriage but did marry the father of the child. The marriage ended in divorce. During the time of my professional efforts with her, at no time did the family physician or I consider providing contraceptive devices. My attitude at that time was that if I did treat her in this manner, I would be supporting her promiscuous behavior and encouraging her in this behavior pattern.

The second girl was an 18-year-old college student who was the daughter of a professional man and his wife. Her mother held a prominent state-wide office in her church. The daughter's sexual activity was limited to one man who was a graduate assistant on the faculty of the university where she was in attendance. She was referred because of personality problems rather than her sexual behavior. She had accepted the attitude that premarital sexuality was permissible and acceptable. She had no concern about this and purchased spermicidal jelly which she used regularly. My attitude at that time was such that even if she had requested contraceptive devices from me, I would not have prescribed them. She has since married the man with whom she was living in a conjugal relationship. Apparently they are happy and are the parents of two children.

The third girl grew up on a farm and was the daughter of a graduate nurse. Her partner was a neighboring farm boy with whom she had been engaged in sexual activities since her sophomore year in high school. At the time she consulted me she was a senior in high school. She was referred by her family physician (from outside the state) for psychiatric evaluation prior to an abortion. I could find no psychiatric reason why an

abortion should be done; however, she did have this procedure done by ethical physicians in her home state. After the operation she expressed her intention to continue her sexual activity with the boy to whom she expected to be married. After discussing my concepts of human sexuality with this girl, with the consent of her mother, I advised that the family physician prescribe a contraceptive device. This I did with no feeling of guilt because I no longer felt that I would be a part of fostering extramarital sexuality in the life of this girl. Quite the contrary, I was of the opinion that contraceptive methods were preferable to a second abortion.

The fourth brief case report is that of a girl who became interested in her sexual partner when both were ninth grade students. Both developed physically earlier than most junior high students. They were in an active sexual relationship pattern by the time they were sophomores in high school. The girl conceived outside of marriage and she, too, had an abortion by ethical physicians in another state. She and the boy were from different racial backgrounds. The family situation was most disturbed and became even more disturbing when she continued her sexual activity after the abortion and she told her parents she had no intention of changing it. In this instance it was also advised that she have a contraceptive device prescribed in preference to another abortion.

The fifth case history was that of a high school girl who became sexually promiscuous in the junior high years. Even after she had spent a period of time in a girls' boarding school and in a correctional institution for girls, she continued to be sexually promiscuous. She, too, had had an abortion and continued her sexual promiscuity. Interestingly enough her sexual experiences were not enjoyable. She was playing the game of who was really seducing whom. She was provided with contraceptives.

While I hold the philosophy that the ultimate in sexual fulfillment comes about in a growing relationship of trust, love and commitment, and while I believe we should develop programs of sex education to this end, I believe we must be realistic and face the increasing numbers of illegitimate pregnancies

## Adolescent / FAIR

in teenage girls. Also, I believe that we must be aware of the changing attitude on the part of our adolescents toward premarital sexual expression. Perhaps in due time and with proper education our young people will find that this does not bring the fulfillment they desire and they will be more disciplined in their behavior. Until this time comes, I will continue to prescribe and advise contraceptive devices to the sexually active teenage girl and attempt to help her come to a better understanding of sexual expression.

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# Post Traumatic Respiratory Insufficiency (Shock-Lung Syndrome) Clinical Features and Pathophysiology

R. RICHARD EDDE, MD

*Severe trauma can result in pulmonary interstitial edema and shunting producing a syndrome of hyperventilation, alkalosis and hypoxemia.*

**RESPIRATORY FAILURE** after trauma has become one of the most difficult and challenging clinical problems of the past decade. Three primary reasons for the increasing importance of this problem are the Vietnam War, the increase in civilian trauma in this country, and the fact that many patients with formerly lethal injuries are now surviving to the post-operative period as physicians become more adept at resuscitation and surgical management of the injured patient.

## THE CLINICAL SYNDROME OF THE SHOCK-LUNG

In general, there is a remarkably stereotyped presentation, characterized by a short latent period of several hours after injury, the subsequent development of tachypnea, dyspnea, cyanosis, respiratory alkalosis, and diffuse alveolar and/or interstitial radiologic infiltrates; moreover, failure to re-

lieve hypoxemia with the breathing of pure oxygen, subsequent development of respiratory acidosis and rapid, extremely shallow breath requiring tracheal intubation and ventilatory support are often preterminal features.

Moore, *et al*,<sup>8</sup> have classified the syndrome of post traumatic pulmonary insufficiency into four clinical phases. (Table 1)

The first phase of injury, resuscitation and alkalosis immediately follows the initial episode of injury after the patient has been resuscitated from a low-flow state by a variety of means. Prior to this resuscitation, there is a build-up of metabolic acid, largely lactate. But with improved circulation this lactic acid is quickly oxidized and excreted and the patient is typically found to be alkalotic. This alkalosis is a mixed respiratory and metabolic alkalosis due to spontaneous hyperventilation, metabolism of transfused citrate anion, or withdrawal of gastric juice.

Recovery from this phase often proceeds without event. Ominous signs indicating a clinical deterioration include continued necessity for blood and/or vasopressors, arterial hypoxemia, or hypocarbia.

The phase of circulatory stabilization and beginning respiratory difficulty is characterized by a stable circulation and may last from hours to three to five days. Clinically the patient exhibits a state of hyperventila-

Table 1.

Clinical phases of post-traumatic pulmonary insufficiency

1. Injury, resuscitation, and alkalosis.
2. Circulatory stabilization and beginning respiratory difficulty.
3. Progressive pulmonary insufficiency.
4. Terminal hypoxia and hypercarbia with asystole.

tion but without hypocarbia. Other pulmonary signs and symptoms are usually normal but the  $PO_2$  is borderline. This increased alveolar-arterial oxygen gradient without hypoxemia, and hyperventilation sufficient to produce hypocarbia is characteristic of increased venous admixture due to increased physiologic shunt, *ie*, perfusion of nonventilated segments. This shunt usually ranges from 15% to 30% of the cardiac output.

Next, pulmonary insufficiency ensues and the patient's respiratory difficulty becomes more pronounced. Generally, at this time patients require tracheal intubation, although their hypocarbia persists. Examination often reveals increasing rales and rhonchi and the chest x-ray shows spotty, diffuse infiltrates. The patient is often given 100% oxygen at this time. Infection and secondary bacterial pneumonias as well as sepsis frequently develop. Recovery from this phase, however, can still occur.

The final phase of terminal hypoxia and hypercarbia with intermittent asystole lasts only a few hours. The patient lapses into coma and the pulmonary shunt increases markedly. There is a sharp rise in the arterial lactate with a concomittant rise in  $CO_2$  tensions and a precipitous fall in the arterial pH. This hypoxemia and hypercarbia results in a fatal effect on the heart, producing disorganized QRS complexes, bradycardia, and finally asystole.

#### PATHOLOGY OF THE SHOCK-LUNG

Grossly the changes in the lungs are non-specific. The lungs fill the thorax but they are wet and heavy and contain grossly detectable foci of pneumonia. Microscopically, the picture is more characteristic, consisting of interstitial edema around the small blood vessels.

As shock progresses, the vessels leak erythrocytes into the fluid-filled interstitium

and eventually into the alveoli, producing interstitial and intra-alveolar hemorrhage. Hyaline membrane deposition becomes apparent, and there are alterations in the membranous (Alveolar type I) epithelial cells consisting mainly of hypertrophy and swelling. This greatly increases the effective distance necessary for diffusion of oxygen and  $CO_2$ . There are also alterations in the granular (Alveolar type II) epithelial cells which purportedly produce surfactant.<sup>4</sup> The role of platelet agglutination is still not understood. Some reports indicate that platelets are destroyed and elevated levels of serotonin are released in the pulmonary circulation. Recently, it has been reported that polymorphonuclear leukocytes are sequestered in the pulmonary circulation. These cells undergo morphological change and disruption and presumably release enzymes in the pulmonary system.<sup>10</sup>

#### PATHOPHYSIOLOGY OF THE SHOCK-LUNG SYNDROME

Table 2 shows the four significant categories in the pathophysiology of the shock-lung syndrome. A prolonged period of spontaneous hyperventilation with hypocarbia and respiratory alkalosis is characteristic of the early course. This hyperventilation is independent of any trauma to the chest. Definite etiologic factors are unknown, but seem to reside in a variety of mechanisms including inadequate oxygenation, hemorrhage, infection, burns, and beginning pulmonary shunt.

The pulmonary vascular response has been extensively studied by Wilson, *et al*,<sup>11</sup> who used an open thoracotomy with a dis-

Table 2.

Pathophysiology of Post-traumatic pulmonary insufficiency

1. Hyperventilation with hypocarbia.
2. Pulmonary Vascular response.
3. Alveolar-arterial oxygen gradient.
4. Pulmonary shunting.

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secting microscope to view circulatory changes in cats subjected to hypovolemic shock. As blood pressure was reduced, constriction of pulmonary arterioles was observed. This constriction occurred in the distal precapillary segment. Corresponding to flow cessation, there was a visible widening of the interstitial compartments which was the manifestation of pulmonary edema.

The alveolar-arterial oxygen gradient is a difference between the alveolar oxygen tension and the arterial oxygen tension. It has been shown that alveolar-arterial difference or gradient in O<sub>2</sub> tensions is greatly increased in patients suffering from post-traumatic pulmonary insufficiency.<sup>1, 9</sup> A large gradient provides for a diffusion barrier leading to intractable hypoxemia. Any increase in the alveolar-arteria gradient may be considered related to the interaction of two possible causes:

1. Limitation of the diffusion of transport of oxygen across the blood gas barrier.
2. True venous shunting, via normal shunt channels, new or abnormal anatomic shunt channels, or physiologic shunt channels, *ie*, the perfusion of non-ventilated bronchoalveolar segments.

Pulmonary shunting is classically a basic component of this syndrome. With collapse of alveoli secondary to decreased surfactant production,<sup>4</sup> and intra-alveolar hemorrhage and edema, there ensues the perfusion of non-ventilated bronchoalveolar segments. Germon,<sup>2</sup> *et al*, have shown that non-thoracic trauma can produce increased return of untrapped macroaggregated albumin to the systemic circulation. Normal pulmonary circulation consists of a flow of blood through the pulmonary artery to capillary beds and to the left side of the heart through the pulmonary vein. Germon theorizes that with pulmonary arteriolar constriction, a local pulmonary arteriolar hypertension develops sufficient pressure to open the preterminal arteriole and permits the recircuiting of blood from the pulmonary artery directly into the pulmonary vein, bypassing the alveolar capillary bed. This non-arterialized blood then becomes a contributing factor in the production of hypoxemia due to increasing venous admixture. While normal pulmonary shunting is approximately three percent of the cardiac output, in the pulmonary insufficiency syndrome this shunting may rise to 25% to 60% of the cardiac output.

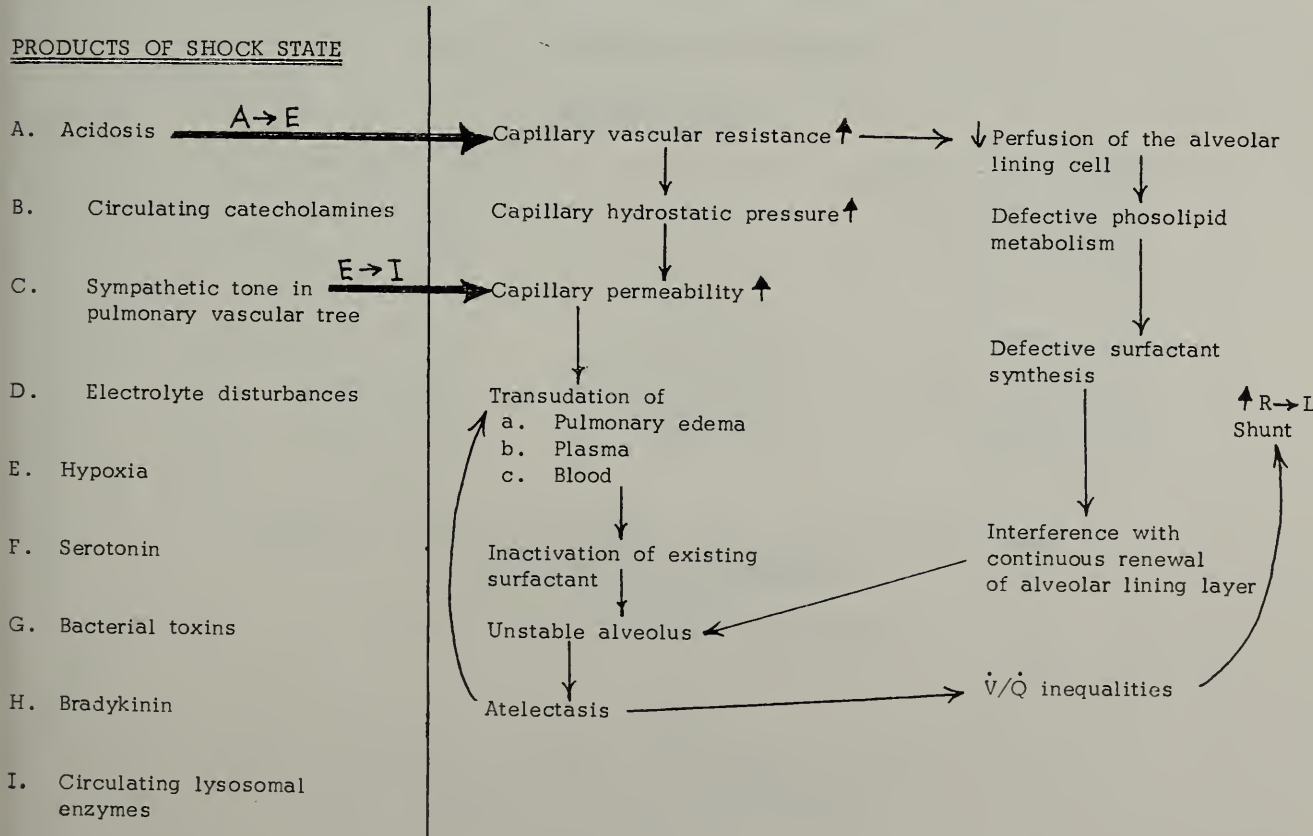


Figure 1

In summary, interstitial edema and hemorrhage with resultant increased A/a gradients and pulmonary shunting lead to a syndrome characterized by hyperventilation with hypocarbia, respiratory alkalosis and hypoxemia. Figure 1 is an attempt to diagram the possible etiologic factors and their relationships in the shock-lung syndrome.

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## **EIGHTH OKLAHOMA COLLOQUY ON ADVANCES IN INTERNAL MEDICINE MEDICAL THERAPEUTICS**

**MAY 18th AND 19th, 1973**

#### **GUEST SPEAKERS**

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and Pharmacology  
University of Michigan Medical  
School  
Ann Arbor, Michigan

**ERIC R. HURD, M.D.**

Assistant Professor Internal  
Medicine  
University of Texas Southwestern  
Medical School  
Dallas, Texas

**ROBERT D. CONN, M.D.**

Professor and Chairman  
Department of Medicine  
Southern Illinois University  
School of Medicine  
Springfield, Illinois

**A. YUNIS, M.D.**

Professor of Medicine  
University of Miami School  
of Medicine  
Miami, Florida

**WILLIAM R. WILSON, M.D.**

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## RABIES HYPERIMMUNE SERUM

Hyperimmune serum has proved effective in preventing rabies. Its use in combination with vaccine is considered the *best* post-exposure prophylaxis. Unfortunately, the only preparation of antirabies serum currently available in the United States is of equine origin.

The administration of equine serum should be carried out by a qualified physician, and only after appropriate tests for hypersensitivity have been performed. There are risks involved in the use of equine serum—*however, there are also risks involved in less than optimal antirabies prophylaxis.*

The recommended dose of antirabies serum is 40 IU (1 vial)/55 pounds. Up to 50 percent of the antiserum should be used to infiltrate the wound and the rest given intramuscularly.

In persons hypersensitive to equine serums, a decision must be made to give, or not to give, antirabies serum. Hypersensitivity is determined by the intradermal injection of 0.1 ml. of a 1:1000 dilution of antirabies serum in normal saline. The test is read in 20 minutes and is positive if a wheal



## News From The Oklahoma State Department of Health

1 centimeter or more in diameter is present.

Desensitization and serum administration are recommended in rabid bites and in all bite exposures where rabies cannot be ruled out in the biting animal (e.g. when biting animal has escaped, or in all bites by wild animals). When serum is to be used in hypersensitive persons it should be given in gradually increasing doses. See dosage schedule in Reference 2.

In the event of a reaction during the course of therapy in a hypersensitive patient, the subsequent doses should be reduced. Signs of acute anaphylaxis call for the immediate intravenous injection of 0.2 to 0.5 ml. of 1:1000 epinephrine solution. □

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## COMMUNICABLE DISEASES IN OKLAHOMA FOR MARCH, 1973

Disease	March 1973	March 1972	February 1973	Total to Date	
				1973	1972
Amebiasis	—	4	3	* 3	8
Brucellosis	—	—	—	2	1
Chickenpox	476	9	202	715	98
Encephalitis, infect.	1	—	—	2	2
Gonorrhea	951	691	750	2669	2306
Hepatitis, infect. & serum	127	36	82	276	222
Leptospirosis	—	1	—	—	1
Malaria	—	1	—	—	2
Meningococcal infections	2	1	—	4	3
Meningitis, aseptic	2	2	1	4	20
Mumps	77	9	50	156	92
Rabies in animals	23	28	8	38	63
Rheumatic fever	2	—	1	5	9
Rocky Mt. spotted fever	—	—	—	—	1
Rubella	13	—	21	40	2
Rubella, congenital syn.	—	—	—	—	—
Rubeola	11	—	—	15	1
Salmonellosis	18	3	16	42	21
Shigellosis	23	4	3	40	16
Syphilis	41	65	113	219	271
Tetanus	—	—	—	—	—
Tuberculosis, new active	31	31	24	77	67
Tularemia	2	1	1	6	1
Typhoid fever	—	—	—	1	—
Whooping cough	1	1	5	8	9
*Deletion of 1 case					

## Meet The President



C. Riley Strong, MD

On Saturday evening, April 28th, a new president took over the leadership of the OSMA's 2,400 members. C. Riley Strong, MD, El Reno, was handed the gavel by outgoing President Stanley R. McCampbell, MD, of Oklahoma City.

Doctor Strong was selected as President-Elect of the organization last year during the OSMA House of Delegates meeting in Oklahoma City.

Doctor Strong has been in the private practice of medicine in El Reno, Oklahoma, since 1946. He graduated from Oklahoma University College of Medicine in 1943 and took a rotating internship at the U.S. Naval Hospital, Long Beach, California.

During World War II he served 36 months in the United States Navy as a medical officer. Of this time 14 months were spent as a ship's physician and ten months overseas.

He was born on February 3rd, 1920 in Nashville, Kansas. He took his premedical education at Oklahoma A&M College, Stillwater.

Doctor Strong has served as a member of the OSMA Board of Trustees and was Chair-

man of the Board for four years. He has also been active in the American Academy of Family Physicians and served that organization as its state President in 1965, and as a Delegate to the Congress of the AAFP. He was one of the charter members of the Oklahoma Chapter of the Academy.

He and his wife, Ruth Ellen, have three children: Clinton, Steven and Sharon. Clinton is a medical doctor and Steven is completing his studies in pharmacology. □

## Oklahoma Physicians To Visit Viking Land

Oklahoma physicians will be well represented in the land of the Vikings when 170 of them depart Oklahoma City on July 26th for the OSMA's Scandinavian Adventure.

The Oklahomans will spend 14 days discovering Sweden, Finland, and Denmark. They begin by flying directly from Oklahoma City to Stockholm via chartered World Airways private jet.

The \$868 price tag on the Scandinavian Adventure covers everything . . . chartered air transportation, deluxe hotels, American breakfast in the hotel each morning and gourmet dinners at a choice of the finest restaurants each evening. All tips, transfers and many other extras make the holiday carefree and thoroughly enjoyable.

The Scandinavian Adventure tour is being planned for the OSMA by the INTRAV Organization. This company has planned several tours for the medical association in the past and is recognized internationally for its excellence. A special escort travels with the adventures throughout the trip. Five personable hosts in each of the three major cities to be visited . . . Stockholm, Helsinki and Copenhagen . . . assist in making personal arrangements for sightseeing, shopping and night clubbing.

The tour itself will spend four days each in Stockholm, Helsinki, and Copenhagen. Side trips are available to the fascinating Isle of Gotland, Oslo, Norway and an overnight excursion to Leningrad. Physicians interested in going on the Scandinavian Adventure are urged to contact the OSMA immediately. □

## Best Seller Diet Book Called Scientific and Dangerous

"Doctor Atkins' Diet Revolution," a current best seller book, has been labeled as unscientific and potentially dangerous to health by the Council on Foods and Nutrition of the American Medical Association.

The book recommends a sharply restricted intake of carbohydrates to lose weight and is authored by Robert C. Atkins, MD, of New York City.

"The 'Diet Revolution' is neither new nor revolutionary," the AMA Council declared in a formal statement analyzing the books' recommendations. "It is a variant of the 'familiar' low carbohydrate diet that has been promulgated for years. The rationale advanced to justify the diet is, for the most part, without scientific merit."

The Council went on to say that it was even more deeply concerned about the diets advocating an "unlimited" intake of saturated fats and cholesterol rich foods. Individuals responding to such a diet with a rise in blood fats will have an increased risk of coronary artery disease and arteriosclerosis, particularly if the diet is maintained over a prolonged period.

The book states that the diet promotes production of a "fat mobilizing hormone" referred to as FMH, "and the production of FMH is the whole purpose of this diet—and the reason it works when all other diets fail." According to Doctor Atkins, "FMH releases energy into your blood stream by causing

the stored fat to convert to carbohydrate."

According to the AMA Council no such hormone as a "fat mobilizing hormone," has been established in man. In addition, no appreciable conversion of fat to carbohydrate occurs in the human body.

The Council urged physicians to counsel their patients as to the potentially harmful effects of the Atkins' Diet.

"It is unfortunate that no reliable mechanism exists to help the public evaluate and put into proper perspective the great volume of nutritional information and misinformation with which it is constantly being bombarded," the Council statement said. □

## ABFP Schedules Certification Exams

The American Board of Family Practice has scheduled its next two-day written certification examination on October 20th - 21st, 1973. Sites for these tests will be in various centers geographically distributed throughout the United States.

It is necessary for each physician desiring to take the examination to file a completed application with the board office. Deadline for receipt of applications is August 1st, 1973.

Information may be obtained by writing Nicholas J. Pisacano, MD, Secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex No. 2, Room 229, Lexington, Kentucky 40506. □

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## **PMA Urges Review of FDA Procedures**

During the past decade European nations have seen the introduction of roughly seventy new single drug entities every year. In the same period, the number of such drugs introduced in the United States never exceeded 31, dwindled to only five in 1970, and to two in 1972, according to the Food and Drug Administration.

As the Pharmaceutical Manufacturers Association watch the United States position as a world leader in innovation of new drugs slip away, it began to ask that the FDA's procedures be reviewed. Throughout the 1960-1970 decade, the U. S. continued as an innovator of new drugs, but by the end of the decade, had slipped to fifth place in drug introduction.

In recent months the PMA has reviewed the problem and has recommended that there be a sweeping review of the 1962 amendments to the Food, Drug and Cosmetic Act laws and of the regulations implementing them. The recommendation was made last November before the FDA's National Advisory Drug Committee, and again in February before the Monopoly Subcommittee of the Senate Small Business Committee chaired by Wisconsin Senator Gaylord Nelson.

PMA's action was made against the background of substantial and broad based criticism of the FDA. In the last Congress consumer advocates backed a bill . . . later passed by the Senate . . . that would have abolished the agency outright. Its sponsors claimed that FDA had done so inadequate a job of consumer protection that the only solution was to liquidate it and create a brand new bureaucracy.

While criticizing the FDA, the PMA has also come to its defense. The manufacturers point out that the FDA's problems are three-fold . . . it is inadequately funded and staffed, in view of its workload . . . it requires assistance in decision-making from qualified outside experts . . . and its regulations and procedures have become needlessly cumbersome.

Illustrating the problem, PMA noted, for example, that in the four years ending in 1970, the United Kingdom approved the marketing of 70 new drugs, including some

invented in the United States, none of which were marketed in this country during that period.

Bureaucracy and a monumental workload combine to create delays in FDA procedures. While it is common place for the British to complete their review of a new drug submission in two months or less, FDA rarely completes its review in two years, and some applications have been pending for six to eight years.

Procedural regulations also are an impediment to a more streamlined FDA operation. One such regulation requires that even the most trivial change in manufacturing or labeling of drugs cannot be made without prior FDA consent. Another is that manufacturers with 25 years of proven experience in the manufacture of antibiotics must never the less obtain FDA approval for each batch they make, even though the law passed ten years ago allows for exemption to the certification procedure.

While the PMA was recommending changes, it stated that the agency is overdue for a constructive study with the participation of medicine, the industry and the public.

Even while the PMA and some members of Congress were recommending that the FDA bureaucracy be streamlined, the agency was in the final stages of implementing a drug efficacy study program of all over the counter drugs and was preparing another study program to evaluate the safety and efficacy of all licensed biological products. □

## **U.S. Department of Health Is Considered**

Establishment of a U. S. Department of Health is again being considered. The AMA, among other organizations, has a draft bill which will create within the Executive Department, at the Cabinet level, a separate Department of Health which would be headed by a Secretary of Health who would be a doctor of medicine, appointed by the President, with the consent of the Senate. This department would then administer all programs related to health now under the jurisdiction of the Department of Health, Education, and Welfare. □

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## **Congress Seeks Emergency Aid For Twelve Doomed Programs**

Unless Congress comes to the rescue, twelve health legislation programs will expire on June 30th. Numerous bills have already been introduced to save some of the programs from the junk heap. Among the more important of the twelve programs that will expire on June 30th without Congressional intervention is the Regional Medical Program, Comprehensive Health Planning, the Hill Burton Hospital Construction Program, and Maternal and Child Health and Crippled Children's Services under Title V of the Social Security Act.

Each of the programs has its own flock of Congressional supporters urgently pushing the passage of emergency legislation to keep the various programs afloat. By mid-May many of these emergency appropriation proposals and bills to extend the programs will probably be winding up their Congressional journey and ready for signature or veto by the President.

Numerous hearings have been held by Congress with various members of the administration, including HEW Secretary Casper Weinberger. By the end of April the administration still had not made clear which of the programs it wanted to see continued.

In late March the Senate passed a bill which would extend several of the programs for one year. Among the authorities extended by the bill are Regional Medical Program, Hill-Burton, Comprehensive Health Planning, Allied Health Training, and Community Mental Health Centers.

A similar bill was pending before the House of Representatives during April. However, in addition to the above named programs it would also extend the Family Planning and Development Disability Legislation.

The following is a brief explanation of each of the health programs slated to expire on June 30th:

1. Allied Health Professions Training Act. This act provides authority to the Secretary of HEW to assist in the training of allied health professions. It authorizes construction, modernization, improvement, and special project grants to training centers.

2. Traineeships for Professional Public Health Personnel. This provides funds for

graduate specialized training in public health for physicians, engineers, nurses, sanitarians and other professional health personnel.

3. Medical Library Assistance. This program created a national library of medicine and authorized the establishment of regional libraries. HEW could make grants to public or private non-profit agencies or institutions to help meet the cost of construction of such facilities.

4. Health Services for Migrant Workers. HEW was authorized to make grants to public and other non-profit agencies for paying the cost of establishing and maintaining family health service clinics for domestic agriculture migratory workers and their families, including the cost of necessary hospital care.

5. Lead-based Paint Poisoning Prevention Act. This act authorized grants to local units of government in order to assist in the development and carrying out of programs to detect and treat the incidences of lead-based paint poisoning.

6. Maternal and Child Health and Crippled Children's Services Under Title V. Title V provides for a system of grants to states to enable them to carry on programs for reducing infant mortality and otherwise promote the health of mothers and children. Funds are also available for medical, surgical, corrective and other services and care for, and facilities for diagnosis, hospitalization and after care for children who are crippled or who are suffering from conditions leading to crippling.

7. Family Planning Services and Population Research Act. This act creates an office to administer all federal grants or contracts related to population research and family planning programs.

8. Mental Retardation Facilities and Community Mental Health Center Construction Act. This was another act enabling HEW to make grants for construction of appropriate facilities, planning and provision of services, and staffing community mental retardation facilities.

9. Hill-Burton Program. This law provided funds for grants, loans and loan guarantees for construction and modernization of public or other non-profit hospitals and public health centers.

10. Regional Medical Program. RMP worked in numerous areas, but primarily concerned with continuing medical education. It started out as the regional centers for heart disease, cancer, stroke, kidney disease, and other related diseases with an ultimate aim of assisting research and then publishing the results.

11. Comprehensive Health Planning. The CHP Act authorizes HEW to make grants to assist the various states in comprehensive and continuing planning for the current and future health needs. It also includes authority to make grants to public or non-profit private agencies, institutions, or organizations to cover part of the cost of providing services, including related training, to meet health needs of limited geographic scope or of specialized regional or national significance.

12. Comprehensive Drug Abuse Prevention and Control Act. This legislation established programs for the rehabilitation of drug dependent persons and was being implemented through the Community Mental Center System mentioned above. It also allowed the Secretary of HEW to make grants to states and their political subdivisions, as well as to public and non-profit private agencies, for the establishment and operation of drug abuse education programs. □

## Commission Recommends De-emphasis of Government in Drug Field

While the abuses of alcohol, heroin and other drugs show no signs of disappearing soon and may even increase, drugs do not threaten to destroy society according to the National Commission on Marijuana and Drug Abuse.

In a 481-page report to Congress and President Nixon the Commission made 100 recommendations to de-emphasize government involvement in the drug field, which the panel criticized sharply and re-emphasized family, church and community involvement.

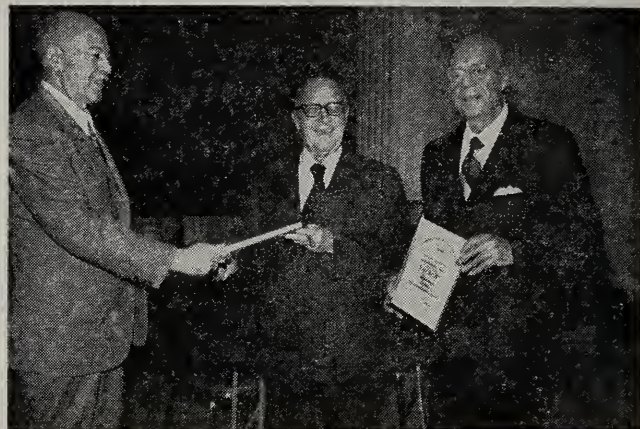
The Commission's report concluded that it could see little evidence of any decline in the rate of experimental use, particularly of marijuana and hallucinogenic drugs, by

young people. It went on to state that "youthful experimentation will remain one of the most difficult aspects of the drug problem."

A year ago the Commission recommended that all criminal penalties for personal use and possession of marijuana be abolished. Its most recent report came as the White House announced plans to group all federal drug law enforcement under one agency in the Justice Department.

The report stated, "The drug problem, as perplexing and as extensive as it is, is not going to bring about the collapse of our society. We will make some progress in dealing with it, but we should not harbor unrealistic hopes for the future." □

## Two Tulsa Physicians Honored



Two veteran Tulsa physician, G. R. Russell, MD, (center) and Carl J. Hotz, MD, (right) are presented Certificates of Life Membership in the Oklahoma State Medical Association. Making the presentation is Paul A. Bischoff, MD, Tulsa (left), member of the OSMA Board of Trustees. The plaques were awarded at the March 12th meeting of the Tulsa County Medical Society at St. John's Hospital, Tulsa.

Doctor Russell, a graduate of Case Western Reserve University School of Medicine, entered practice in Tulsa in 1933 after practicing at Cleveland, Ohio. He partially retired from the Pediatrics Department at Springer Clinic two years ago, and now divides his time between Springer Clinic and Moton Health Center, where he is Director of Professional Services. A former President of Tulsa County Medical Society, he has served on numerous committees of the American Academy of Pediatrics.

Doctor Carl J. Hotz retired from the surgical staff of Springer Clinic two years ago. A graduate of the University of Illinois School of Medicine, he entered practice in Tulsa in 1932. Widely known for his hobby as a rose grower, Doctor Hotz is a member of numerous professional organizations. □

## DEATHS

**N. F. VANDER BARKETT, MD**  
1915-1973

A prominent Oklahoma City surgeon, N. F. Vander Barkett, MD, died March 8th, 1973. He was the father of V. Michael Barkett, MD, also an Oklahoma City physician.

A native of Oklahoma City, Doctor Barkett was graduated from the University of Oklahoma College of Medicine in 1939, where he later became an Instructor in Surgery. He was a Diplomate of the American Board of Surgery and a Fellow of the American College of Surgeons.

**DAVIS S. HARRIS, MD**  
1883-1973

A long time, Drummond physician, Davis S. Harris, MD, died in Enid, March 14th, 1973. A native of Texas, Doctor Harris graduated from the Physio-Medical College of Texas in 1906. He practiced in

Texas before entering practice in Drummond.

In 1955 Doctor Harris was presented a Life Membership by the OSMA.

**WALTER K. HARTFORD, MD**  
1909-1973

A prominent, Oklahoma City physician for over 25 years, Walter K. Hartford, MD, died March 30th, 1973. A native of Oklahoma City, Doctor Hartford was graduated from the University of Oklahoma College of Medicine in 1940 where he later served as Associate Professor of Obstetrics and Gynecology. He was also an instructor in pathology, director of the cytology laboratory and professor of cytotechnology at the school of related professions in addition to his private practice.

Doctor Hartford was a flight surgeon with the Medical Corps during World War II. □

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### Alumni Association Officers Installed

Shown above are new officers installed during the 35th annual meeting of the Alumni Association, College of Medicine, University of Oklahoma, held March 31st at Oklahoma City. Left to right are, Curtis B. Cunningham, MD, Clinton, vice president; Julius A. LaCroix, Jr., MD, Hugo, secretary; John M. Moore, MD, Pauls Valley, outgoing president; and Earl M. Bricker, Jr., MD, Oklahoma City, incoming president. Not shown is Clyde W. Barton, MD, Tulsa, who is the association's new treasurer. □

### Medicare Says Doctor Bills Going Down

Recent data from the Social Security Administration indicates that the average physician charges for service under Medicare have been going down. Figures from the beginning of Medicare in 1966 through 1971 show average charges by physicians to be down 5.2 percent for surgical services and 11.5 percent for medical services.

The same figures indicate that hospital charges had nearly doubled by the end of 1971, up 83 per cent. Comparable figures from 1972 are expected to be available by mid 1973.

The American Medical Association's *Update*, listed average charges for 1967 through 1971 for hospital fees per day, surgical services and medical services.

Average charges in July, 1966, were: Surgeons, \$174 per procedure; medical services, \$52; hospitals, \$47 per day. In December, 1971, surgeons had dropped to \$165, medical services to \$46, while hospitals were up to \$86 per day. □

### Renal Transplantation Symposium Planned For Tulsa

A two-day symposium on renal transplantation has been scheduled for the Fairmont Mayo Hotel in Tulsa, May 17th-18th, 1973. Sponsor for the meeting will be the Hillcrest Medical Center and the Renal Transplantation Committee with the support of the John Steele Zink Medical Institute.

Format for the conference will be six separate sessions of one and one-half hours each beginning with a thirty minute presentation, followed by a one hour panel discussion with questions from the audience. Topics will be clinically oriented with emphasis on recent development and current controversial subjects.

Special entertainment has been planned for wives of attending physicians.

Physician registration fee is \$35.00 which should be mailed to T. Richard Medlock, MD, Director, Renal Laboratory, Hillcrest Medical Center, Utica on the Park, Tulsa, Oklahoma 74104. □



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## Phase III Restrictions To Be Reviewed

The Nixon Administration has notified the AMA that it is "prepared to review thoroughly the regulations governing the medical profession" in the Phase III controls that continue the limits on physician's fee increases.

In early January the AMA petitioned President Nixon to exempt physicians from Phase III controls. In a response from John Dunlap, Director of the Cost of Living Council, it was stated, "As you know the health field has been persistently among the most inflationary areas in our economy . . .".

In a letter to John R. Kernodle, MD, Chairman of the AMA Board of Trustees, Dunlap said, "We are presently in the process of appointing members to the new Health Industry Advisory Committee and I assure you that the views of physicians will be represented on that committee. As soon as an Executive Director for the committee is named, I will have him contact you for suggestions on how best to meet our goals for controlling health care costs under Phase III.

"Meanwhile, I know the federal government can count on your cooperation in following the legal requirements now in effect, and I am looking forward to working with you to evaluate new alternatives." □

## Cough Medicines May Be Taken From Market

Physicians may be forced to revert to the practice of bygone years and write their own cough mixture formulation for the local pharmacist to prepare, following orders from the Food and Drug Administration withdrawing from the market dozens of commercially prepared cough medications.

The FDA ruling is based on regulations that require proof of effectiveness of all medications through well controlled clinical trials. Many of the cough medicines, although used safely and effectively for many years, do not have this clinical proof, and may be withdrawn from the market.

One AMA spokesman said, "Unfortunately, neither practicing physicians nor the pharmaceutical industry can produce the ob-

jective evidence required under the law on behalf of most cough mixtures. Cough mixtures are effective, but, in addition to one or two principle ingredients that make them effective, they contain a number of minor ingredients that cannot be shown to contribute to the overall effectiveness of the mixture."

Several years ago the AMA pointed out in its drug manual, *AMA Drug Evaluations*, that trying to evaluate cough medicines is at best confusing, and suggested to physicians that they become familiar with a few preparations they know from experience are useful, and stick to these. A recent editorial in the *Journal of the American Medical Association* stated, "The FDA, the medical profession, pharmaceutical industry and the public are placed in a difficult situation. Preparations in long and general use, generally harmless, and significantly beneficial as judged by physician and patient experience, must, under act of Congress, be either withdrawn, reformulated or relabeled." □

## POT POURRI

**National PSRO may be in the works, but Washington pundits see a "go slow" attitude.** HEW's PSRO officials are already telling interested organizations that the national PSR Council may not be named until June and it is likely that the regulations will not be issued until November. At the present time the PSRO office is operating without a budget and although William Bauer, MD, chosen to head the PSRO operation is on board, he has not yet been officially named to the office.

"Good health care is hard to find . . .", a charge that is often leveled at medicine was recently answered by AMA Executive Vice-President Ernest Howard, MD. He pointed out that the U. S. Public Health Service data shows that 2,300,000 people each day see a physician, that the nearest physician is only 17 minutes from the average home, and 20,000,000 house calls were made in 1969, more than half of which were to families with under \$3,000 annual income, the elderly or the handicapped. Only 0.2 percent of the U.S. population lives in counties without a doctor, and these are areas where the density is four people per square mile. □

## Miscellaneous Advertisements

**INTERNAL MEDICINE PRACTICE** - 30 minutes to Tulsa: This practice presents an outstanding opportunity for an internist or general practitioner so inclined. Buy into three-man group with surgeon and gynecologist. Your net \$75,000. Price of \$32,500 includes building. Professional Practice Sales, 1215 Walker Avenue, Houston, Texas 77002. 713 222-9112.

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**FOR LEASE — ANY PART OR ALL:** Medical clinic, in good location, N.W. Can handle one to four doctors, off street parking. In good pay area. Have a dentist in one part of building now. Available now. C. A. Walker—Days 427-6602. Saturdays, Sundays and evenings 946-5157.

**INTERNAL MEDICINE**—July 1st opening for board eligible or certified internist to associate with multispecialty group. 1972 All-American City — College community—excellent practice opportunity. Inquiries confidential. Contact W. S. Harrison, MD, Chickasha Clinic, P.O. Box 1069, Chickasha, Oklahoma. Phone 1-800-522-8926.

**FOR SALE OB-GYN PRACTICE AND EQUIPMENT**, including examining tables, desks, chairs, surgical cabinets, filing cabinets, cyro surgery machine, sterilizer, electric cautery machine, etc. Office open until April 1st, 1973. Contact 201 Pasteur Building, 1111 North Lee, Oklahoma City. Telephone 232-3151.

**PHYSICIANS AND STAFF PSYCHIATRISTS.** Psychiatry service of university affiliated VA Hospital. Salary range to

\$34,971 plus fringe benefits depending on qualifications. Current unrestricted license in any State of U.S. required. Research and teaching opportunities and university medical faculty appointments available. Contact Chief of Staff, North Little Rock Division, VAH, Little Rock, Arkansas. Phone 501 372-8361, Ext. 601. An equal opportunity employer.

**PRACTICE FOR SALE.** Entering residency program. Wish to sell practice in surgery and general medicine. Located in community of approximately 10,000, 25 miles from major metropolitan area. Gross income in 1972, \$111,000 with collection ratio of 98.2 percent of billed charges. Area needs someone interested in OB. Wish to sell share of multi-office building and all equipment. Lease possible. Contact Ed Kelsay, OSMA 405 842-3361.

**THE GOOD LIFE** - Physician to join outpatient department (primarily industrial trauma) of multi-specialty clinic. Optimum hours. Income well above average. Many fringe benefits. W. F. Phelps, MD, P.O. Box 3718, Tulsa, Oklahoma 74152, (918) 742-3341.

**7300 SOUTH WESTERN**, new medical-dental clinic. Excellent location for any type MD. 2,400 square feet left. Will rent all or part. 631-3304 or 843-1709.

**TWO DOCTOR CLINIC.** Sears Foundation clinic, rent free. For further information and brochure, call collect, area code 405, 549-6045, 549-6115, 549-6551, 549-6106.

**SACRIFICE: ENTIRE PRACTICE FOR SALE.** Building and equipment less than five years old. Good location (Roman Nose State Park and Canton Dam close by). Leaving for residency training June 30th, 1973. If interested, call collect: James R. Ricks III, MD, 405 623-7347 or 623-4550, Watonga, Oklahoma. ☐

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## The JOURNAL

of the Oklahoma State Medical Association

### DEADLINES

September Issue

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Advertising Copy .....	August 15, 1973
News Copy, Miscellaneous Ads .....	August 15, 1973

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Articles accepted for publication, including manuscripts of annual meeting papers, are the sole property of *The Journal* and must not have been published elsewhere. Authority for approval of all contributions rests with the Editorial Board, and the Board reserves the right to edit any material submitted. Manuscripts should be typewritten, double spaced and submitted in original and one copy. Receipt of manuscripts will be acknowledged and unused manuscripts returned. Used manuscripts will be returned on request. *The Journal of the Oklahoma State Medical Association* is not responsible for the statements or opinions of any contributor.

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Members of the Oklahoma State Medical Association, the constituent societies of the association, and all readers in general are invited to supply news items of general interest to the profession.

### ADVERTISING

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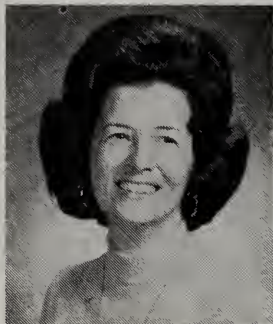
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1973-74 OFFICERS

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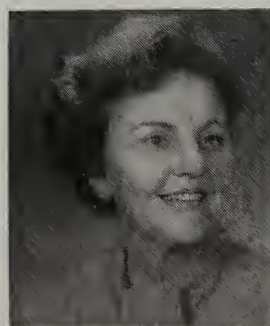
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## Putrescible Political Parsimony

Very soon hospital utilization review committees will be called upon to certify the need for hospitalization of every Medicare case prior to admission. Shortly thereafter, all insurance underwriters will make similar demands for their policyholders. Then it will be but a matter of months before the committees will certify each admission for only a specified number of days, at the end of which time, insurance coverage will be terminated and/or the case will be reviewed for extension of stay.

Although part of the latter function has been the traditional role of hospital utilization committees since their creation by federal mandate several years ago, the pre-admission certification activities are new. The effects of such an extended role will be ominous and profound for hospital administrators, practicing physicians and patients, as well as the members of utilization review committees. The very existence of a hospital will depend upon the decisions of its utilization review committee. Practicing physicians, especially those working in the surgical specialties, will be totally subservient to utilization review committees. Patients will have vital aspects of their health care designed and determined by members of utilization review committees, all of whom, in the great majority of cases, will be total strangers, unfamiliar with the patients and only vaguely aware of their medical needs.

In assuming the responsibilities involved in determining a patient's need for hospitali-

zation, utilization review committee members should keep in mind that they are *not* engaged by the patient, the attending physician or by the hospital but by the insurance carriers. Therefore, committee members will be functioning as unsolicited, involuntary, intervening consultants who are primarily, if not wholly, concerned with the financial welfare of the insurer and only incidentally, if at all concerned with the welfare of the patients referred for hospitalization. The liabilities which committee members must assume in such a role seem inescapable and awesome. The likelihood of contriving a successful means of avoiding the legal implications of such a position seems remote.

Imagine, if you can, the physician-hours of work involved in appraising the need for hospitalization of an 80-year-old man with shortness of breath on exertion, or, a 13-year-old girl with stomach ache. Imagine, if you can, the rancor and alienation which will follow the third or fourth denial of hospitalization for a specific patient or the patients of a specific physician. Imagine, if you can, the extensions of the pre-procedure certification concept which will soon follow, in true bureaucratic fashion, the entrenchment of pre-hospitalization certification. It is a short step to pre-operative certification, pre-anesthesia certification, pre-x-ray certification and pre-urinalysis certification. After all, each of these procedures carries a price tag, and keeping down the cost of health care (in truth, the cost of health insurance) is the main and *only* objective of all this effort.

Isn't it? — MRJ

□



I know all of you are fed up clear to the ears with PSRO. However, this is still one of our No. 1 problems. Your President and a delegation consisting of Don Blair, Joe Crosthwait, MD, and Hillard Denyer, MD, went to Washington

May 23rd, to a special AMA-PSRO meeting. While there we contacted the Oklahoma delegation with a request that they intercede with Secretary Weinberger to designate Oklahoma as one PSRO area. After our conference with them the entire delegation, Senator Bellmon, Senator Bartlett, Congressmen Albert, Steed, Jarman, Camp, McSpadden and Jones all sent a letter to Secretary Weinberger requesting that Oklahoma be considered as one PSRO area. I feel that this is a very fine rapport with our congressional delegation.

The special governor's committee has submitted names to the governor for suggested appointment to the new University Hospital Board. We conveyed to the governor the idea that we felt three physicians should be on this Board. The governor's committee is also looking for a physician to be the permanent prison system medical officer. If you know of anyone interested please contact me.

Now for a little bit of information that all of you should know but possibly do not. Please remember that all deaths must be reported to the office of the Chief Medical Examiner if they are on the following list.

1. By violence
2. By suspicious, unusual, or unnatural means.
3. After unexplained coma.
4. Unattended by a licensed medical or osteopathic physician.
5. Medically unexpected and occurring in

course of therapeutic procedure.

6. While in penal incarceration.
7. Related to disease which might constitute threat to public health.
8. Body to be cremated, buried at sea, transported out of state, or made unavailable for pathological study.

One thing that I learned recently was that in the case of an automobile accident if the individual dies in a hospital irrespective of the period of survival following the injury it must be reported to the Chief Medical Examiner, at 405-239-7141. It is a misdemeanor under the medical examiners law not to report the above eight conditions. I am sure many of you, like myself, were unaware of these particular provisions. I recommend that all of you become familiar with this law and notify A. Jay Chapman, MD, Chief Medical Examiner, as required by law.

It was my privilege, June 10th, to represent the OSMA at the graduation of the new physicians from the Medical School. This is indeed a rare privilege.

The OSMA delegation to the AMA meeting in New York has plans to be very active in the participation of this meeting and all of them will represent you well.

Incidentally, the opinion pole on activation of the Oklahoma Foundation For Peer Review was over 5 to 1 in favor.

We have consulted the OSMA attorney and are requesting an opinion from the Attorney General on the legality of abortions in Oklahoma. Be careful until we have an opinion.

The Annual Meeting Committee is working on a joint meeting with the Oklahoma Academy of Family Physicians and the Oklahoma City Clinical Society in Oklahoma City in May, 1974.

Have a nice summer.

Sincerely,

*C Riley Strong MD.*

# Books as Clinical Tools

*Annotated Book List For Practicing Physicians (1973)*

KELLY M. WEST, MD\*  
RUTH WENDER, MLS\*\*

*"Read with two objects: First to acquaint yourself with the current knowledge on a subject and the steps by which it has been reached; and secondly, and more important, read to understand and analyze your cases." — Sir William Osler*

The publications listed below are books for busy physicians who care for patients. The list is designed to help both practicing physicians and librarians in identifying and acquiring those well-recommended books which best fit their specific needs. We hope that the annotations and the information on prices will allow doctors and librarians to purchase a maximum of useful information at minimum cost. We believe that this selected list will also serve teachers, directors of medical education and their interns, residents and medical students. The list is sponsored by the Department of Continuing Education of the University of Oklahoma College of Medicine because the method of continuing medical education with greatest potential is

self-education, and particularly that which relates directly to specific day-to-day problems of individual patients.

This is the fourth clinician's book list we have published in recent years, and it is intended to replace entirely these previous lists. Since our most recent list (1972) was widely used throughout this country and abroad, a further account is warranted concerning our present methods and criteria of selection. Although some older books still have much useful information, we have, as a general rule, confined our selections to books published since 1970. Exceptions to this general policy were made when the newer books in a field did not seem to replace the substance or quality of an older book. The 1973 list covers all major clinical specialties and most subspecialties, but a priority in our grading system is given to books that contain information of interest to a physician who does not limit his practice to the specialty or subspecialty covered by the book. Highly specialized clinical books are listed only when they concern extremely common and important clinical problems (eg, myocardial infarction). A recent good book on hematology would be listed; one on multiple myeloma would not.

Since our 1972 list, 150 titles have been added and 77 deleted. There are now 331 books, listed under 33 different clinical subject headings. A few books are listed under each of two subject headings. Judgments on inclusion or exclusion are based on published book reviews, opinions of practitioners and

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\*\*Coordinator, Regional Library Services, University of Oklahoma Health Sciences Center Library

subject experts, and our own evaluations. Although it is now based on extensive research and consultation, our process of review and selection is still imperfect. Every book considered has not been read from cover to cover by a thoughtful, perceptive, and unbiased jury of six subject experts and six typical practitioners. But it is because our methods are somewhat informal and arbitrary that we are able to publish in mid-1973 a list of very recent clinical books including those of 1973. We have the advantages of not being a committee. We recognize the importance for the clinician of both the research and basic science literature. But most of these books of medical science were intentionally omitted because their content has a less immediate practical utility for the practicing physician. We are not saying that practitioners should ignore these kinds of books, but this is not what our list is about.

A very substantial majority of the best clinical books of general interest are now on this list, but some are not. Often our consultants disagreed about which books should be omitted or included, and sometimes the "vote" was close. Doubtless further consultation would have yielded a different result in some cases. We welcome further suggestions. We expect a few letters of admonition, and even of outrage.

Although we are pleased that many hospital libraries have found our lists useful, we do not recommend uncritical acquisition of the whole list. This should be treated as a list of "good possibilities," and not as a pronouncement concerning which books ought to be bought and which ignored. Hospital library committees are reminded that this list does not attempt to cover some of the important book needs of other health professionals (eg, nurses, technicians, administrators). We should also point out that hospital libraries will often require additional titles relating to the information needs of physicians who are performing functions other than patient care (research, teaching, administration). To this 1973 list we have added a single alphabetized titles and names of senior authors.

The development of this annotated list was aided by Special Project Grant 5D08PE08009 from the National Institutes of Health and by grant 1 GO8 LMO1675-01 from the National Library of Medicine. The judgments made do not, of course, necessarily reflect those of NIH or NLM. Of course, we were helped in preparation of this list by many physicians and librarians. This year's list is dedicated to the scholarly preceptors and other practicing physicians who have donated so much time teaching our students and to the students of other medical schools.

### THE LIST

#### ALLERGY AND IMMUNOLOGY

1. Freedman, S. O.: *Clinical Immunology*. Hagerstown, Md., Harper & Row, 1971. \$20.00.
2. Guttman, R. D. (Editor): *Immunology*. New York, Medcom, 1973. Paper, \$9.95.
3. Patterson, R. (Editor): *Allergic Diseases: Diagnosis and Management*. Philadelphia, Lippincott, 1972. \$23.75.
4. Patterson, R. (Editor): *Modern Concepts in Clinical Allergy*. New York, Medcom. 1972. Paper, \$9.95.
5. Samter, M. (Editor): *Immunological Diseases*. 2d ed. Boston, Little, Brown, 1971. 2 vols. \$45.00.
6. Swineford, O., Jr.: *Asthma and Hay Fever*. Springfield, Ill., Thomas, 1971. \$19.50.

*Comment:* Probably the most comprehensive source for clinical information is now the book of Samter. Note, however, that it is somewhat expensive, and that shorter and cheaper books are available in each of the two aspects of this field (clinical allergy and clinical immunology).

#### ANATOMY (See surgery)

#### ANESTHESIOLOGY

7. Dripps, R. D., et al.: *Introduction to Anesthesia*. 4th ed. Philadelphia, Saunders, 1973. \$11.00.
8. Gray, T. C. and Nunn, J. F. (Editors): *General Anaesthesia Vol. 2: Clinical Practice*. (This is volume 2 of a set of which volume 1 is *Basic Sciences*)

3d ed. Toronto, Canada, Butterworth, 1972. About \$50.00.

9. Lund, P. C.: *Principles and Practice of Spinal Anesthesia*. Springfield, Ill., Thomas, 1971. \$37.75.

10. Wylie, W. D. and Churchill-Davidson, H. C.: *A Practice of Anesthesia*. 3d ed. Chicago, Year Book, 1972. \$44.75.  
*Comment:* The book of Dripps covers well the rudiments. The book of Wylie has greater depth of information and is the most frequently recommended general reference work in the field.

#### ARTHRITIS AND RHEUMATISM

11. Copeman, W. S. C.: *Textbook of the Rheumatic Diseases*. 4th ed. Baltimore, Williams & Wilkins, 1969. \$38.00.
12. Hollander, J. L. (Editor): *Arthritis and Allied Conditions; a Textbook of Rheumatology*. 8th ed. Philadelphia, Lea & Febiger, 1972. \$38.50.  
*Comment:* The book of Hollander is considered to be the best general reference work in the field.

#### CANCER

13. Ackerman, L. V. and Del Regato, J. A.: *Cancer: Diagnosis, Treatment, and Prognosis*. 4th ed. St. Louis, Mosby, 1970. \$43.50.
14. Brodsky, I. and Kahn, S. B. (Editors): *Cancer Chemotherapy II*. New York, Grune & Stratton, 1972. \$29.50.
15. Cline, M. J.: *Cancer Chemotherapy*. Philadelphia, Saunders, 1971. \$10.00.
16. Cole, W. H. (Editor): *Chemotherapy of Cancer*. Philadelphia, Lea & Febiger, 1970. \$12.50.
17. Greenwald, E. S.: *Cancer Chemotherapy*. 2d ed. Flushing, N.Y., Medical Examination, 1973. Paper, \$10.00.
18. International Union Against Cancer: *Clinical Oncology*. New York, Springer-Verlag, 1972. \$7.00.
19. Moore, C.: *Synopsis of Clinical Cancer*. 2d ed. St. Louis, Mosby, 1970. \$11.75.  
*Comment:* Among the several listed books on cancer chemotherapy we have no special preference. The most useful general reference work on cancer is still the book of Ackerman. For physicians and hospitals who do not need information in considerable depth, the

inexpensive little volume of Moore would be a good buy.

#### CARDIOVASCULAR DISEASES (See also pulmonary diseases for thoracic surgery)

20. Ayres, S. M., et al. (Editors): *Cardiology: A Clinicophysilogic Approach*. New York, Appleton, 1971. \$15.00.
21. Barker, W. F.: *Peripheral Arterial Disease*. 2d ed. Philadelphia, Saunders, 1973. In Prep.
22. Bellet, S.: *Clinical Disorders of the Heart Beat*. 3d ed. Philadelphia, Lea & Febiger, 1971. \$52.50.
23. Bellet, S.: *Essentials of Cardiac Arrhythmias. Diagnosis and Management*. Philadelphia, Saunders, 1972. \$15.50.
24. Bilitch, M.: *A Manual of Cardiac Arrhythmias*. Boston, Little, Brown, 1972. \$12.50.
25. Burch, G. E. and Winsor, T.: *A Primer of Electrocardiography*. 6th ed. Philadelphia, Lea & Febiger, 1972. \$7.75.
26. Chung, E. K. (Editor): *Principles of Cardiac Arrhythmias*. Baltimore, Williams & Wilkins, 1971. \$24.75.
27. Clauss, R. H. and Redisch, W.: *Remediable Arterial Disease*. New York, Grune & Stratton, 1971. \$18.50.
28. Conn, H. L., Jr. and Horowitz, O. (Editors): *Cardiac and Vascular Diseases*. Philadelphia, Lea & Febiger, 1971. 2 vols. \$39.50.
29. Corday, E. and Swan, H. J. C.: *Myocardial Infarction*. Baltimore, Williams & Wilkins, 1973. In Prep.
30. Fairbairn, J. F., II, et al. (Editors): *Peripheral Vascular Disease*. 4th ed. Philadelphia, Saunders, 1972. \$25.00.
31. Friedberg, C. K.: *Diseases of the Heart*. 3d ed. Philadelphia, Saunders, 1966. 1 vol., \$22.00; 2 vol. set, \$26.00.
32. Friedberg, C. K. (Editor): *Myocardial Infarction 1972*. New York, American Heart Association, 1972. Paper, \$5.00.
33. Gifford, R. W., Jr.: *Peripheral Vascular Disease*. Philadelphia, Davis, 1971. \$12.00.
34. Harrison, D. C. (Editor): *Management of Acute Myocardial Infarction*. New York, Medcom, 1973. Paper, \$9.95.
35. Holling, H. E.: *Peripheral Vascular Dis-*

- eases: *Diagnosis and Management*. Philadelphia, Lippincott, 1972. \$13.00.
36. Hurst, J. W. and Logue, R. B.: *The Heart: Arteries and Veins*. 2d ed. New York, McGraw-Hill, 1970. 1 vol. ed., \$34.50; 2 vol. ed., \$41.00.
  37. Kappert, A. and Winsor, T.: *Diagnosis of Peripheral Vascular Disease*. Philadelphia, Davis Co., 1972. \$32.00.
  38. Littman, D.: *Textbook of Electrocardiography*. Hagerstown, Md., Harper & Row, 1972. \$22.50.
  39. Nadas, A. S. and Fyler, D. C.: *Pediatric Cardiology*. 3d ed. Philadelphia, Saunders, 1972. \$25.00.
  40. Onesti, G. and Kim, K. E. (Editors): *Hypertension*. New York, Grune & Stratton, 1973. In Prep.
  41. Oram, S.: *Clinical Heart Disease*. Philadelphia, Davis, 1971. \$42.00.
  42. Rubin, I. L., et al.: *Treatment of Heart Disease in the Adult*. 2d ed. Philadelphia, Lea & Febiger, 1972. \$27.00.
  43. Russek, H. I. and Zohman, B. L.: *Cardiovascular Therapy*. Baltimore, Williams & Wilkins, 1971. \$24.00.
  44. Schamroth, L.: *The Disorders of Cardiac Rhythm*. Philadelphia, Davis, 1971. \$42.00.
  45. Toole, J. F., et al.: *Cerebral Vascular Disease*. New York, Grune & Stratton, 1971. \$9.75.
  46. Wood, P. H.: *Diseases of the Heart and Circulation*. 3d ed. Philadelphia, Lippincott, 1968. \$29.00 (Revised by Sommerville, Walter).

*Comment:* There are now several good books on peripheral vascular diseases. The most widely used book in the field was formerly that written by Allen, Barker, and Hines. This book has been recently brought up to date by Fairbairn and his associates. It is still a good book. The general cardiology books of Friedberg and of Paul Wood are now out of date in some respects, but they are excellent works. Among the most useful recent general texts on cardiology are books of Hurst and of Conn and Horowitz. We did not list all of the books of good quality on electro-

cardiography, of which there are several. Nor did we list all of the recent publications on coronary care *eg*, Whipple's book. Note, however, that we list several books on the arrhythmias, including both the very detailed and expensive volume of Bellet and shorter, cheaper works by several authors.

## DERMATOLOGY

47. Behrman, H. T., et al.: *Common Skin Diseases: Diagnosis and Treatment*. 2d ed. New York, Grune & Stratton, 1971. \$15.75.
48. Bluefarb, S. M.: *Scope Monograph on Dermatology*. Kalamazoo, Mich., Upjohn, 1972. \$3.50.
49. Braverman, I. M.: *Skin Signs of Systemic Disease*. Philadelphia, Saunders, 1970. \$29.50.
50. Butterworth, T.: *Manual of Dermatologic Syndromes*. 2d ed. Philadelphia, Lippincott, 1972. \$3.00.
51. Demis, D. J., et al.: *Clinical Dermatology*. Hagerstown, Md., Harper & Row, 1972. \$160.00 (New Page Service, \$27.50 per year after the first year)
52. Domonkos, A. N.: *Andrews' Diseases of the Skin*. 6th ed. Philadelphia, Saunders, 1971. \$30.00.
53. Fitzpatrick, T. B., et al. (Editors): *Dermatology in General Medicine*. New York, McGraw-Hill, 1971. \$42.50.
54. Pillsbury, D. M.: *A Manual of Dermatology*. Philadelphia, Saunders, 1971. \$15.00.
55. Rook, A., et al. (Editors): *Textbook of Dermatology*. 2d ed. Philadelphia, Davis, 1972. 2 vols. \$115.00.
56. Sauer, G. C.: *Manual of Skin Diseases*. 3d ed. Philadelphia, Lippincott, 1973. In Prep.
57. Sneddon, I. B. and Church, R. E.: *Practical Dermatology*. 2d ed. Baltimore, Williams & Wilkins, 1971. \$8.25.
58. Stewart, W. D., et al.: *Synopsis of Dermatology*. 2d ed. St. Louis, Mosby, 1970. \$14.50.

*Comment:* For the dermatologists the best general source of information is the two-volume set edited by Rook, but this publication is expensive (\$115). Of the general texts of standard size,

we have usually recommended the book of Domonkos. Among the smaller books we have preferred the publication of Pillsbury, but the others listed above have been well-recommended.

## DIAGNOSIS

59. Barness, L. A.: *Manual of Pediatric Physical Diagnosis*. 4th ed. Chicago, Year Book, 1972. Paper, \$6.95.
60. Barondess, J. A. (Editor): *Diagnostic Approaches to Presenting Syndromes*. Baltimore, Williams & Wilkins, 1971. \$21.50.
61. Buckingham, W. B., et al.: *A Primer of Clinical Diagnosis*. Hagerstown, Md., Harper & Row, 1971. \$12.75.
62. Conn, H. F. and Conn, R. B., Jr. (Editors): *Current Diagnosis 3*. Philadelphia, Saunders, 1971. \$25.00.
63. Cope, Z.: *The Early Diagnosis of the Acute Abdomen*. 14th ed. New York, Oxford University Press, 1972. Paper, \$4.50. Cloth, \$6.95.
64. Harvey, A. M. and Bordley, J., III: *Differential Diagnosis: The Interpretation of Clinical Evidence*. 2d ed. Philadelphia, Saunders, 1970. \$27.00.
65. Harvey, A. M. and Bordley, J., III: *Differential Diagnosis: The Interpretation of Clinical Evidence*. Abridgement of 2d ed. Philadelphia, Saunders, 1972. \$12.00.
66. MacBryde, C. M. and Blacklow, R. S. (Editors): *Signs and Symptoms; Applied Pathologic Physiology and Clinical Interpretation*. 5th ed. Philadelphia, Lippincott, 1970. \$22.50.
67. Prior, J. A. and Silberstein, J. S.: *Physical Diagnosis: The History and Examination of the Patient*. 4th ed. St. Louis, Mosby, 1973. \$12.75.

*Comment:* We did not list here all of the available books of quality on physical diagnosis, but some of the best recent works in this field are listed. The book of MacBryde has always been highly regarded. The book of Harvey and Bordley received good reviews and is available in both a detailed and an abridged version with prices to match.

## DIETETICS (See nutrition)

## DRUGS (See pharmacology and therapeutics)

## ELECTROCARDIOGRAPHY (See cardiovascular diseases)

## ELECTROLYTES (See fluids and electrolytes)

## EMERGENCIES (See also cardiovascular diseases, orthopedics, pharmacology and therapeutics [poisoning], surgery, and others)

68. American College of Surgeons. Committee on Trauma: *Early Care of the Injured Patient*. Philadelphia, Saunders, 1972. \$9.00.
69. Birch, C. A. (Editor): *Emergencies in Medical Practice*. 9th ed. Baltimore, Williams & Wilkins, 1971. \$19.75.
70. Cole, W. H. and Puestow, C. B.: *Emergency Care: Surgical and Medical*. 7th ed. New York, Appleton, 1972. \$12.00.
71. Eckert, C. (Editor): *Emergency-Room Care*. 2d ed. Boston, Little, Brown, 1971. Paper, \$9.50. Cloth, \$14.50.
72. Flint, T. and Cain, H. D.: *Emergency Treatment and Management*. 4th ed. Philadelphia, Saunders, 1970. \$11.50.
73. Gardiner-Hill, H. (Editor): *Compendium of Emergencies*. 3d ed. London, Butterworth, 1971. \$14.75.
74. Gilston, A. and Resnekov, L.: *Cardiorespiratory Resuscitation*. Philadelphia, Davis, 1971. \$16.00.
75. Gleason, M., et al.: *Clinical Toxicology of Commercial Products*. 3d ed. Baltimore, Williams & Wilkins, 1969. \$24.50.
76. Henderson, J.: *Emergency Medical Guide*. 3d ed. New York, McGraw-Hill, 1973. Paper, \$3.95. Cloth, \$8.95.
77. Hurst, J. W. (Editor): *Clinician: Managing Medical Emergencies*. Chicago, Medcom for Searle, 1972. No price listed.
78. Moore, M. E. (Editor): *Medical Emergency Manual: Differential Diagnosis and Treatment*. Baltimore, Williams & Wilkins, 1972. Paper, \$8.95.
79. Oaks, W. W. and Spitzer, S. (Editors): *Emergency Room Care*. New York, Grune & Stratton, 1972. \$18.50.
80. Schneewind, J. H. (Editor): *Medical and Surgical Emergencies*. 3d ed. Chicago, Year Book, 1973. \$6.50.

*Comments:* The publication of the American College of Surgeons on early

care of the injured patient is excellent. Our consultants have had some criticisms of all of the short books on emergency care. Most of these criticisms relate to the superficiality with which certain kinds of emergency problems are treated. But this is an almost inherent characteristic of a brief publication attempting to cover all of the major conditions which may result in an emergency. Very detailed information will, of course, be available in books which specifically concern the various conditions that may require emergency treatment (eg, orthopedics, cardiology, etc.).

#### ENDOCRINOLOGY AND METABOLISM

81. Bondy, P. K. and Rosenberg, L. E.: *Duncan's Diseases of Metabolism: The Genetic and Biochemical Basis of Disease*. 7th ed. Philadelphia, Saunders, 1973. In Prep.
82. Catt, K. J.: *An ABC of Endocrinology*. Boston, Little, Brown, 1972. \$5.95.
83. Ellenberg, M. and Rifkin, H. (Editors): *Diabetes Mellitus; Theory and Practice*. New York, McGraw-Hill, 1970. \$35.00.
84. Fajans, S. S. and Sussman, K. (Editors): *Diabetes Mellitus: Diagnosis and Treatment*. Volume III. New York, American Diabetes Association, 1971. \$5.75.
85. Hamilton, W.: *Clinical Paediatric Endocrinology*. New York, Appleton, 1972. \$12.75.
86. Marble, A., et al. (Editors): *Joslin's Diabetes Mellitus*. 11th ed. Philadelphia, Lea & Febiger, 1971. \$32.50.
87. Schneeberg, N. G.: *Essentials of Clinical Endocrinology*. St. Louis, Mosby, 1970. \$23.75.
88. Stanbury, J. B.: *The Metabolic Basis of Inherited Disease*. 3d ed. New York, McGraw-Hill, 1972. \$45.00.
89. Turner, C. D. and Bagnara, J. T.: *General Endocrinology*. 5th ed. Philadelphia, Saunders, 1971. \$12.00.
90. Werner, S. C. and Ingbar, S. H. (Editors): *The Thyroid*. 3d ed. Hagerstown, Md., Harper & Row, 1971. \$33.50.

91. Williams, R. H. (Editor): *Textbook of Endocrinology*. 4th ed. Philadelphia, Saunders, 1968. \$24.00.

*Comment:* The excellent general text of Williams is now out of date in some respects, but it has not been entirely replaced by the less comprehensive volumes that have been published more recently. The book of Werner and Ingbar (*The Thyroid*) has been very well received. The book of Stanbury is excellent. Duncan's book on metabolism is now being brought up to date by Bondy and Rosenberg. We anticipate that it will be a very useful publication. In diabetes, the books of Marble and of Ellenberg are both good and rather comprehensive. The book edited by Fajans and Sussman is much shorter but of very good quality. It is also quite cheap.

#### EYE DISEASE (See ophthalmology)

#### FLUIDS AND ELECTROLYTES

92. Filley, G. F.: *Acid-Base and Blood Gas Regulation: For Medical Students Before and After Graduation*. Philadelphia, Lea & Febiger, 1971. \$10.50.
93. Masoro, E. J. and Siegel, P. D.: *Acid-Base Regulation: Its Physiology and Pathophysiology*. Philadelphia, Saunders, 1971. \$7.50.
94. Maxwell, M. H. and Kleeman, C. R.: *Clinical Disorders of Fluid and Electrolyte Metabolism*. 2d ed. New York, McGraw-Hill, 1972. \$29.50.
95. Welt, L. G.: *Clinical Disorders of Hydration and Acid-Base Equilibrium*. 3d ed. Boston, Little, Brown. (1974 or 1975) In Prep.

*Comment:* Note that the new edition of Welt is still in preparation. The other three listed are good books. At present the best general source of information in this field is probably the book of Maxwell and Kleeman.

#### GASTROENTEROLOGY

96. Bockus, H. L., et al.: *Gastroenterology*. 2d ed. Philadelphia, Saunders, 1963-65. vol. 1, \$26.00; vol. 2, \$29.00; vol. 3, \$31.00. 3 vols. \$83.00.
97. Bogoch, A. (Editor): *Gastroenterology*. New York, McGraw-Hill, 1973. \$47.50.
98. Paton, A.: *Liver Disease*. Philadelphia,

Lippincott, 1970. \$7.25.

99. Paulson, M. (Editor): *Gastroenterologic Medicine*. Philadelphia, Lea & Febiger, 1969. \$60.00.
100. Schiff, L. (Editor): *Diseases of the Liver*. 3d ed. Philadelphia, Lippincott, 1969. \$39.50.
101. Spiro, H. M.: *Clinical Gastroenterology*. New York, Macmillan, 1970. \$35.00.
102. Truelove, S. C. and Reynell, P. C.: *Diseases of the Digestive System*. 2d ed. Philadelphia, Davis, 1972. \$23.50.
- Comment:* The very detailed volumes of Bockus are now out of date in some respects. The book of Spiro and the new edition of Truelove have been well received. As of this date we have not found a review on the very new book edited by Bogoch. Two consultants who had examined only the prospectus anticipated that this would be a good book.

GENETICS (See endocrinology and metabolism)

GERIATRICS (See internal medicine)

GYNECOLOGY AND OBSTETRICS

103. Barr, W.: *Clinical Gynecology*. Baltimore, Williams & Wilkins, 1971. \$13.75.
104. Benson, R. C.: *Handbook of Obstetrics and Gynecology*. 4th ed. Los Altos, Calif., Lange, 1971. \$6.50.
105. Danforth, D. N. (Editor): *Textbook of Obstetrics and Gynecology*. 2d ed. Hagerstown, Md., Harper & Row, 1971. \$35.00.
106. Green, T. H., Jr.: *Gynecology: Essentials of Clinical Practice*. 2d ed. Boston, Little, Brown, 1971. Paper, \$9.50. Cloth \$14.00.
107. Hellman, L. M. and Pritchard, J. A. (Editors): *Williams Obstetrics*. 14th ed. New York, Appleton, 1971. \$23.50.
108. Howkins, J. and Bourne, G.: *Shaw's Textbook of Gynecology*. 9th ed. Baltimore, Williams & Wilkins, 1971. \$16.50.
109. Huffman, J. W.: *Textbook of Gynecology*. 7th ed. Philadelphia, Saunders, 1973. In Prep.
110. Kistner, R. W.: *Gynecology: Principles and Practice*. 2d ed. Chicago, Year Book, 1971. \$23.95.
111. Kraus, F. T.: *Gynecologic Pathology*.

St. Louis, Mosby, 1967. \$23.25.

112. McLennan, C. E.: *Synopsis of Obstetrics*. St. Louis, Mosby, 1970. \$10.75.
113. Moir, J. C. and Myerscough, P. R. (Editors): *Munro Kerr's Operative Obstetrics*. 8th ed. Baltimore, Williams & Wilkins, 1971. \$26.25.
114. Novak, E. R., et al. (Editors): *Textbook of Gynecology*. 8th ed. Baltimore, Williams & Wilkins, 1970. \$22.50.
115. Novak, E. R., et al.: *Gynecology (Condensed from Novak's Textbook of Gynecology, 8th ed.)* Baltimore, Williams & Wilkins, 1971. Paper, \$12.50.
116. Parsons, L. and Ulfelder, H.: *Atlas of Pelvic Operations*. 2d ed. Philadelphia, Saunders, 1968. \$24.00.
117. Taylor, E. S.: *Beck's Obstetrical Practice*. 9th ed. Baltimore, Williams & Wilkins, 1971. \$19.75.
118. Taylor, E. S.: *Essentials of Gynecology*. 4th ed. Philadelphia, Lea & Febiger, 1969. \$17.00.
119. Taylor, E. S.: *Obstetrics. (Condensed from Beck's Obstetrical Practice, 9th ed.)* Baltimore, Williams & Wilkins, 1972. Paper, \$11.00.
120. Te Linde, R. and Mattingly, R. F.: *Operative Gynecology*. 4th ed. Philadelphia, Lippincott, 1970. \$35.00.
121. Willson, J. R., et al.: *Obstetrics and Gynecology*. 4th ed. St. Louis, Mosby, 1971. \$20.75.

*Comment:* This is a good group of books. Each of our consultants gave favorable ratings to all those listed. They disagreed somewhat, however, with respect to preference rankings. But, for the most part, these rankings ranged only from favorable to very favorable. Note that there are included in the list both the shorter, cheaper volumes and the more expensive books containing greater depth of information.

HEMATOLOGY

122. deGruchy, G. C.: *Clinical Haematology in Medical Practice*. 3d ed. Philadelphia, Davis, 1970. \$16.00.
123. Eastham, R. D. (Editor): *Clinical Haematology*. 3d ed. Baltimore, Williams & Wilkins, 1970. \$7.50.
124. Leavell, B. S. and Thorup, O. A.: *Fun-*

*damentals of Clinical Hematology.* 3d ed. Philadelphia, Saunders, 1971. \$18.00.

125. Smith, C. H.: *Blood Diseases of Infancy and Childhood.* 3d ed. St. Louis, Mosby, 1972. \$29.75.

126. Williams, W. J., et al.: *Hematology.* New York, McGraw-Hill, 1972. \$32.50.

*Comment:* We and others have liked the substance and the price of the book of Leavell and Thorup. Probably the best of the larger volumes is the book edited by Williams and associates. The excellent book of Wintrobe (1967) is not listed because it is now outdated in some respects.

INFECTIOUS DISEASES (See also allergy and immunology, pediatrics, and pharmacology and therapeutics, etc.)

127. American Hospital Association: *Infection Control in the Hospital.* Chicago, A.H.A., 1970. \$4.00.

128. Beck, J. W. and Barrett-Connor, E.: *Medical Parasitology.* St. Louis, Mosby, 1971. \$10.75.

129. Benenson, A. S. (Editor): (American Public Health Association) *Control of Communicable Diseases in Man.* 11th ed. New York, American Public Health Association, 1970. \$2.00.

130. Blair, J. E., et al. (Editors): *Manual of Clinical Microbiology.* Baltimore, Williams & Wilkins, 1970. Cloth \$12.00. Paper, \$7.00.

131. Cluff, L. E. and Johnson, J. E., III: *Clinical Concepts of Infectious Diseases.* Baltimore, Williams & Wilkins, 1972. \$16.50.

132. Conant, N. F., et al.: *Manual of Clinical Mycology.* 3d ed. Philadelphia, Saunders, 1971. \$13.50.

133. Debre, R. and Celers, J. (Editors): *Clinical Virology: Evaluation and Management of Human Viral Infections.* Philadelphia, Saunders, 1970. \$38.00.

134. Emmons, C. W., et al.: *Medical Mycology.* 2d ed. Philadelphia, Lea & Febiger, 1970. \$16.50.

135. Faust, E. C., et al.: *Craig and Faust's Clinical Parasitology.* 8th ed. Phil-

adelphia, Lea & Febiger, 1970. \$25.50.

136. Hoeprich, P. D.: *Infectious Diseases: A Guide to the Understanding and Management of Infectious Processes.* Hagerstown, Md., Harper & Row, 1972. \$42.50.

137. Kagan, B. M. *Antimicrobial Therapy.* Philadelphia, Saunders, 1970. \$14.50.

138. Kucers, A.: *The Use of Antibiotics: A Comprehensive Review with Clinical Emphasis.* Philadelphia, Lippincott, 1972. \$15.75.

139. Stamey, T. A.: *Urinary Infections.* Baltimore, Williams & Wilkins, 1972. \$21.75.

140. Top, F. H.: *Communicable and Infectious Diseases: Diagnosis, Prevention, Treatment.* 7th ed. St. Louis, Mosby, 1972. \$35.00.

*Comment:* Our consultants were favorable but not enthusiastic about the recent publications of Hoeprich and of Top. The book of Cluff and Johnson is good. The books listed under Pediatrics, Internal Medicine, and under Pharmacology and Therapeutics also have a considerable amount of information concerning the diagnosis and management of infectious diseases.

INTERNAL MEDICINE (General)

141. Beeson, P. B. and McDermott, W. (Editors): *Cecil-Loeb Textbook of Medicine.* 13th ed. Philadelphia, Saunders, 1971. 1 vol. ed., \$26.00; 2 vol. ed., \$30.00.

142. Davidson, S. and McLeod, J.: *The Principles and Practice of Medicine.* 10th ed. Baltimore, Williams & Wilkins, 1971. \$16.00.

143. Frohlich, E. D., et al. (Editors): *Pathophysiology, Altered Regulatory Mechanisms.* Philadelphia, Lippincott, 1972. \$21.00.

144. Harvey, A. M., et al. (Editors): *Principles and Practice of Medicine.* 18th ed. New York, Appleton, 1972. \$24.50.

145. Keefer, C. S. and Wilkins, R. W. (Editors): *Medicine: Essentials of Clinical Practice.* Boston, Little, Brown, 1970. Paper, \$11.50. Cloth, \$18.00.

146. Krupp, M. A. and Chatton, M. J. (Editors): *Current Diagnosis and Treatment.* 12th ed. Los Altos, Calif.,

Lange, 1973. \$12.00.

147. McCombs, R. P.: *Fundamentals of Internal Medicine: A Physiologic and Clinical Approach to Disease*. 4th ed. Chicago, Year Book, 1971. \$17.50.
148. Mann, W. N. and Lessof, M. H. (Editors): *Conybeare's Textbook of Medicine*. 15th ed. Baltimore, Williams & Wilkins, 1970. \$20.75.
149. Rossman, I. (Editor): *Clinical Geriatrics*. Philadelphia, Lippincott, 1971. \$24.00.
150. Wintrobe, M. M., et al. (Editors): *Harrison's Principles of Internal Medicine*. 6th ed. New York, McGraw-Hill, 1970. 1 vol. ed., \$28.00; 2 vol. ed., \$32.00.

*Comment:* The books of Beeson (Cecil-Loeb textbook) and of Wintrobe (Harrison's book) are justifiably renowned. They do, of course, cover pretty much the same ground. For this reason some physicians and very small libraries will want to buy only one. If faced with this choice, we would probably flip a coin or possibly select the one bearing the most recent publication date. The smaller books of Harvey and of Keefer have been well regarded.

#### KIDNEY DISEASE (See also urology)

151. Golden, A. and Maher, J. F.: *The Kidney*. Baltimore, Williams & Wilkins, 1971. \$9.75.
152. Papper, S.: *Clinical Nephrology*. Boston, Little, Brown, 1971. \$16.00.
153. Strauss, M. B. and Welt, L. G. (Editors): *Diseases of the Kidney*. 2d ed. Boston, Little, Brown, 1971. 2 vols. \$50.00.

*Comment:* Of the shorter, cheaper volumes we favor the excellent book of Papper. The best and most useful of the more comprehensive volumes is the book of Strauss and Welt.

#### LABORATORY MEDICINE (See also pathology)

154. Bennington, J. L., et al.: *Laboratory Diagnosis*. New York, Macmillan, 1970. \$10.95.
155. Brughera-Jones, A.: *Manual of Laboratory Medicine*. Hagerstown, Md. Harper & Row, 1970. \$10.00.
156. Davidsohn, I. and Henry, J. B. (Editors): *Todd-Sanford Clinical Diag-*

*nosis by Laboratory Methods*. 15th ed. Philadelphia, Saunders, 1973. In Prep.

157. Frankel, S., et al. (Editors): *Gradwohl's Clinical Laboratory Methods and Diagnosis: A Textbook on Laboratory Procedures and Their Interpretation*. 7th ed. St. Louis, Mosby, 1970. 2 vol. \$65.00.
158. Goodale, R. H. and Widman, F. K.: *Clinical Interpretation of Laboratory Tests*. 6th ed. Philadelphia, Davis, 1969. \$11.50.
159. Hoffman, W. S. (Editor): *The Biochemistry of Clinical Medicine*. 4th ed. Chicago, Year Book, 1970. \$16.50.
160. Koepke, J. A.: *Guide to Clinical Laboratory Diagnosis*. New York, Appleton, 1969. \$6.75.
161. Levinson, S. A. and MacFate, R. P. (Editors): *Clinical Laboratory Diagnosis*. 7th ed. Philadelphia, Lea & Febiger, 1969. \$28.50.
162. Miller, S. E. and Weller, J. M. (Editors): *Textbook of Clinical Pathology*. 8th ed. Baltimore, Williams & Wilkins, 1971. \$19.50.
163. Ravel, R.: *Clinical Laboratory Medicine*. Chicago, Year Book, 1969. Paper, \$8.95.
164. Thompson, R. H. S. and Wootton, I. D. P. (Editors): *Bio-chemical Disorders in Human Disease*. 3d ed. New York, Academic, 1970. \$28.00.
165. Wallach, J.: *Interpretation of Diagnostic Tests*. Boston, Little, Brown, 1970. Paper, \$6.95.

*Comment:* The new edition of the book of Davidsohn and Henry will be published soon. We anticipate that it will be very good. Note that we list several smaller, cheaper books. We believe that they are quite useful in certain circumstances.

#### LUNG (See pulmonary diseases)

#### MEDICINE (See internal medicine)

#### METABOLISM (See endocrinology and metabolism)

#### MICROBIOLOGY (See infectious diseases)

#### NEUROLOGY AND NEUROSURGERY

166. Alpers, B. J. and Mancall, E. L.: *Clinical Neurology*. 6th ed. Philadelphia, Davis, 1971. \$35.00.
167. Baker, A. B. and Baker, L. H.: *Clinical*

## Books / WEST, WENDER

- Neurology*. Hagerstown, Md., Harper & Row, 1971. 3 looseleaf vols. \$175.00. (Annual updating information provided at \$30 per year).
168. Kahn, E. A., et al.: *Correlative Neurosurgery*. 2d ed. Springfield, Ill., Thomas, 1969. \$31.50.
  169. Kempe, L. G.: *Operative Neurosurgery, Vol. I: Cranial, Cerebral, and Vascular Disease*. New York, Springer-Verlag, 1968, \$42.50.
  170. Kempe, L. G.: *Operative Neurosurgery, Vol. II: Posterior Fossa, Spinal Cord, and Peripheral Nerve Disease*. New York, Springer-Verlag, 1971. \$52.10.
  171. Logue, V. (Editor): *Neurosurgery (Operative Surgery Ser., Vol. 14)*. 2d ed. Philadelphia, Lippincott, 1971. \$20.00.
  172. Plum, F. and Posner, J. B.: *The Diagnosis of Stupor and Coma*. 2d ed. Philadelphia, Davis, 1972. \$9.50.
  173. Walshe, F. M. R.: *Diseases of the Nervous System*. 11th ed. Baltimore, Williams & Wilkins, 1970. \$14.75.
  174. Walton, J. N. (Editor): *Brain's Diseases of the Nervous System*. 7th ed. New York, Oxford University Press, 1969. \$19.50.
  175. Walton, J. N.: *Essentials of Neurology*. 3d ed. Philadelphia, Lippincott, 1971. \$13.00.
  176. Youmans, J. T. (Editor): *Neurological Surgery*. Philadelphia, Saunders, 1973. 3 vols. Each vol. \$38.00.

*Comment:* The very comprehensive volumes of Baker are excellent but quite expensive. The 1967, neurology book of H. H. Merritt is not listed, but a new (5th) edition of this good book will be available soon. The new book of Youmans on neurologic surgery is very good. This three-volume set is expensive. The smaller book by Kahn is also good.

### NUCLEAR MEDICINE (See radiology)

### NUTRITION

177. Cowan, G. S. M. and Scheetz, W. L. (Editors): *Intravenous Hyperalimentation*. Philadelphia, Lea & Febiger, 1972. Paper, \$12.00.
178. Davidson, S., et al.: *Human Nutrition*

and *Dietetics*. 5th ed. Baltimore, Williams & Wilkins, 1972. \$26.00.

179. Goodhart, R. S. and Shils, M. E.: *Modern Nutrition in Health and Disease*. 5th ed. Philadelphia, Lea & Febiger, 1973. In Prep. (This supersedes Wohl and Goodhart)
180. McLaren, D. S.: *Nutrition and Its Disorders*. Baltimore, Williams and Wilkins, 1973. In Prep.
181. Mayo Clinic: *Diet Manual*. 4th ed. Philadelphia, Saunders, 1971. \$5.95.  
*Comment:* The best general source of information has been the book of Wohl and Goodhart. A new edition by Goodhart and Shils is in preparation and should be available shortly as indicated above.

### OBSTETRICS (See gynecology and obstetrics)

### ONCOLOGY (See cancer)

### OPHTHALMOLOGY

182. Allen, J. H. (Editor): *May's Manual of the Diseases of the Eye*. 24th ed. Baltimore, Williams & Wilkins, 1968. \$11.50.
183. Havener, W. H.: *Synopsis of Ophthalmology*. 3d ed. St. Louis, Mosby, 1971. \$12.75.
184. Newell, F. W.: *Ophthalmology: Principles and Concepts*. 2d ed. St. Louis, Mosby, 1969. \$17.75.
185. Perkins, E. S. and Hansell, P. (Editors): *An Atlas of Diseases of the Eye*. 2d ed. Baltimore, Williams & Wilkins, 1972. \$23.50.
186. Scheie, H. G. and Albert, D. M. (Editors): *Adler's Textbook of Ophthalmology*. 8th ed. Philadelphia, Saunders, 1969. \$17.50.
187. Sorsby, A.: *Modern Ophthalmology*. 2d ed. Philadelphia, Lippincott, 1972. 4 vol. \$190.00  
Vol. 1, Basic Aspects, \$45.00.  
Vol. 2, Systemic Aspects, \$50.00.  
Vols. 3 and 4, Topical Aspects, \$95.00.
188. Vaughan, D., et al.: *General Ophthalmology*. 6th ed. Los Altos, Calif., Lange, 1971. \$8.00.

*Comment:* Some ophthalmologists and the larger libraries will probably want to own the multi-volume set of Duke-Elder. The cost of obtaining all these volumes would exceed \$500.00. Note  
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that we listed here the volumes of Sorsby. They also contain detailed information — at a total price of \$190.00. Physicians who are not ophthalmologists, and small libraries, will probably want to select from the volumes listed above which are of small or intermediate size and price.

#### ORTHOPEDICS

189. Adams, J. C.: *Outline of Orthopaedics*. 7th ed. Baltimore, Williams & Wilkins, 1971. \$11.75.
190. Blakemore, W. S. and Fitts, W. T.: *Management of the Injured Patient*. Hagerstown, Md., Harper & Row, 1969. \$14.50.
191. Crenshaw, A. H. (Editor): *Campbell's Operative Orthopaedics*. 5th ed. St. Louis, Mosby, 1971. 2 vols. \$79.50.
192. DePalma, A. F.: *The Management of Fractures and Dislocations: an Atlas*. 2d ed. Philadelphia, Saunders, 1970. 2 vols. \$52.00.
193. Jaffe, H. L.: *Metabolic, Degenerative and Inflammatory Diseases of Bones and Joints*. Philadelphia, Lea & Febiger, 1972. \$35.00.
194. Lichtenstein, L.: *Diseases of Bone and Joints*. St. Louis, Mosby, 1970. \$18.50.
195. Raney, R. B., et al.: *Shands' Handbook of Orthopaedic Surgery*. 8th ed. St. Louis, Mosby, 1971. \$15.00.
196. Ring, P. A.: *The Care of the Injured*. 2d ed. Baltimore, Williams & Wilkins, 1969. \$6.75.
197. Salter, R. B.: *Textbook of Disorders and Injuries of the Musculoskeletal System*. Baltimore, Williams & Wilkins, 1970. \$19.75.
198. Tachdjian, M. O.: *Pediatric Orthopaedics*. Philadelphia, Saunders, 1972. 2 vols. \$65.00.

*Comment:* The most popular small book is that of Raney. This book will be of interest particularly to those physicians who are not specialists in this field. For the orthopedic surgeon the book of Crenshaw has been a very useful source of detailed information.

#### OTORHINOLARYNGOLOGY

199. Ballantyne, J. and Groves, J. (Editors): *Scott-Brown's Diseases of the Ear, Nose and Throat. Four volumes*. 3d ed. Philadelphia, Lippincott, 1971.

\$25.00

200. Ballenger, H. C., et al.: *Diseases of the Nose, Throat, and Ear*. 11th ed. Philadelphia, Lea & Febiger, 1969. \$35.75.
201. DeWeese, D. D. and Saunders, W. H.: *Textbook of Otolaryngology*. 4th ed. St. Louis, Mosby, 1973. \$14.75.
202. Paparella, M. M. and Shumrick, D. A. (Editors): *Otolaryngology. Vol. I, Basic Sciences and Principles. \$45.00. Vol. II, Otology. \$30.00. Vol. III, Rhinology, Endoscopy, and Related Head and Neck Disorders. \$45.00* Philadelphia, Saunders, 1973. 3 vol. set \$120.00.
203. Pracy, R., et al.: *A Short Textbook Ear, Nose and Throat*. Philadelphia, Lippincott, 1972. Paper, \$5.75.

*Comment:* Probably the best general text, particularly for those who do not specialize in this field is the new edition of the book of DeWeese and Saunders. Specialists will be interested in the new publication of Paparella and Shumrick. Note that this is an expensive three-volume set.

#### PATHOLOGY (See also laboratory medicine)

204. Ackerman, L. V. and Rosai, J.: *Surgical Pathology*. 5th ed. St. Louis, Mosby. In Prep.
205. Anderson, W. A. D.: *Pathology*. 6th ed. St. Louis, Mosby, 1971. 2 vols. \$29.50.
206. Anderson, W. A. D. and Scotti, T. M.: *Synopsis of Pathology*. 8th ed. St. Louis, Mosby, 1972. \$13.95.
207. Boyd, W.: *A Textbook of Pathology*. 8th ed. Philadelphia, Lea & Febiger, 1970. \$22.00.
208. Brunson, J. G. and Gall, E. A. (Editors): *Concepts of Disease: A Textbook of Human Pathology*. New York, Macmillan, 1971. \$23.95.
209. Florey, H. W. (Editor): *General Pathology*. 4th ed. Philadelphia, Saunders, 1970. \$24.00.
210. Robbins, S. L. and Angell, M.: *Basic Pathology*. Philadelphia, Saunders, 1971. \$13.75.

*Comment:* All of these are good books. We have no special favorite among them.

#### PEDIATRICS

211. American Academy of Pediatrics: *Re-*

- port of the Committee on Infectious Disease. (Red Book) 17th ed. Evanston, Ill., American Academy of Pediatrics, 1973. \$3.00 In Prep.
212. Arena, J. M. (Editor) : *Davison's Compleat Pediatrician*. 9th ed. Philadelphia, Lea & Febiger, 1969. \$19.50.
  213. Bakwin, H. and Bakwin, R. M. : *Behavior Disorders in Children*. 4th ed. Philadelphia, Saunders, 1972. \$17.50.
  214. Barness, L. A. : *Manual of Pediatric Physical Diagnosis*. 4th ed. Chicago, Year Book, 1972. Paper, \$6.95.
  215. Barnett, H. L. : *Pediatrics*. 15th ed. New York, Appleton, 1972. \$26.50.
  216. Caffey, J. : *Pediatric X-Ray Diagnosis*. 6th ed. Chicago, Year Book, 1972. \$67.50.
  217. Gellis, S. S. and Kagan, B. M. : *Current Pediatric Therapy 5*. Philadelphia, Saunders, 1971. \$25.00.
  218. Graef, J. E. and Cone, T. E., Jr. (Editors) : *Manual of Pediatric Therapeutics*. Boston, Little, Brown, 1973. In Prep.
  219. Hughes, J. G. : *Synopsis of Pediatrics*. 3d ed. St. Louis, Mosby, 1971. \$15.50.
  220. Kempe, C. H., et al. (Editors) : *Current Pediatric Diagnosis and Treatment*. 2d ed. Los Altos, Calif., Lange, 1972. \$12.00.
  221. Krugman, S. and Ward, R. : *Infectious Diseases of Children*. 4th ed. St. Louis, Mosby, 1968. \$19.50.
  222. Lowrey, G. H. : *Growth & Development of Children*. 6th ed. Chicago, Year Book, 1973. \$13.50.
  223. Nadas, A. S. and Fyler, D. C. : *Pediatric Cardiology*. 3d ed. Philadelphia, Saunders, 1972. \$25.00.
  224. Nelson, W. E., et al. : *Textbook of Pediatrics*. 9th ed. Philadelphia, Saunders, 1969. \$21.50.
  225. Schaffer, A. J. and Avery, M. E. : *Diseases of the Newborn*. 3d ed. Philadelphia, Saunders, 1971. \$27.50.
  226. Shirkey, H. C. (Editor) : *Pediatric Therapy*. 4th ed. St. Louis, Mosby, 1972. \$34.50.
  227. Silver, H. K. : *Handbook of Pediatrics*. 9th ed. Los Altos, Calif., Lange, 1971. \$6.50.

228. Smith, C. A. : *The Critically Ill Child*. Philadelphia, Saunders, 1972. \$11.75.
229. Smith, C. H. : *Blood Diseases of Infancy and Childhood*. 3d ed. St. Louis, Mosby, 1972. \$29.75.

230. Smith, D. W. and Marshall, R. E. (Editors) : *Introduction to Clinical Pediatrics*. Philadelphia, Saunders, 1972. \$6.25.

*Comment:* The most widely used general texts have been those of Nelson and of Barnett. At present the new edition of Barnett is more recent.

#### PERIPHERAL VASCULAR DISEASES (See cardiovascular diseases)

#### PHARMACOLOGY AND THERAPEUTICS

231. American Medical Association Council on Drugs : *A.M.A. Drug Evaluations*. Chicago, American Medical Association, 1973. About \$15.00. In Prep.
232. Arena, J. M. (Editor) : *Current Status: The Management and Treatment of Poisoning*. (Modern Treatment, Vol. 8, No. 3) Hagerstown, Md., Harper & Row, 1971. \$6.00. (This updates *Symposium on Poisoning* by the same author. A limited supply of this journal issue of *Modern Treatment* is available from the publisher.)
233. Aviado, D. M. : *Krantz and Carr's Pharmacologic Principles of Medical Practice: A Textbook on Pharmacology and Therapeutics for Students and Practitioners of Medicine, Pharmacy and Dentistry*. Baltimore, Williams & Wilkins, 1972. \$22.50.
234. Chatton, M. J., et al. : *Handbook of Medical Treatment*. 13th ed. Los Altos, Calif., Lange, 1972. \$6.50.
235. Conn, H. F. (Editor) : *Current Therapy 1973*. Philadelphia, Saunders, 1973. \$17.00.
236. DiPalma, J. R. (Editor) : *Drill's Pharmacology in Medicine*. 4th ed. New York, McGraw-Hill, 1971. \$25.00.
237. Dreisbach, R. H. : *Handbook of Poisoning: Diagnosis & Treatment*. 7th ed. Los Altos, Calif., Lange, 1971. \$6.00.
238. Gleason, M., et al. : *Clinical Toxicology of Commercial Products*. 3d ed. Baltimore, Williams & Wilkins, 1969. \$24.50.
239. Goodman, L. S. and Gilman, A. : *The Pharmacological Basis of Therapeutics*.

tics. 4th ed. New York, Macmillan, 1970. \$25.00.

240. Goth, A.: *Medical Pharmacology: Principles and Concepts*. 6th ed. St. Louis, Mosby, 1972. \$62.50.
241. Melmon, K. L. and Morrelli, H. F. (Editors): *Clinical Pharmacology*. New York, Macmillan, 1972. Paper, \$11.95. Cloth, \$16.00.
242. Meyers, F., et al.: *Review of Medical Pharmacology*. 3d ed. Los Altos, Calif., Lange, 1972. \$8.50.
243. Modell, W. (Editor): *Drugs of Choice 1972-1973*. St. Louis, Mosby, 1972. \$21.50.
244. Modell, W. (Editor): *Drugs in Current Use and New Drugs, 1973*. 19th ed. New York, Springer, 1973. \$4.25.
245. *Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals*. 27th ed. Annual. Oradell, N. J., Medical Economics, 1973. \$12.00.
246. Thienes, C. H. and Haley, T. J.: *Clinical Toxicology*. 5th ed. Philadelphia, Lea & Febiger, 1972. \$18.50.
247. Washington University Department of Medicine. Rosenfeld, G. (Editor): *Manual of Medical Therapeutics*. 20th ed. Boston, Little, Brown, 1971. Paper, \$7.50.

*Comment:* Almost all U. S. physicians are quite familiar with *Physicians' Desk Reference*, but we mention it in these comments because we have found that some new medical librarians don't appreciate at first how frequently physicians use this publication. The AMA publication on drug evaluations contains some excellent summaries that are clinically oriented.

PHYSICAL DIAGNOSIS (See diagnosis)

#### PHYSICAL MEDICINE AND REHABILITATION

248. Krusen, F. H. (Editor): *Handbook of Physical Medicine and Rehabilitation*. 2d ed. Philadelphia, Saunders, 1971. \$22.50.
249. Licht, S.: *Rehabilitation and Medicine*. New Haven, Licht, 1968. \$18.00.
250. Rusk, H. A.: *Rehabilitation Medicine: a Textbook on Physical Medicine and Rehabilitation*. 3d ed. St. Louis, Mosby, 1971. \$22.50.

*Comment:* The standard texts are

those of Krusen and of Rusk.

POISONING (See pharmacology and therapeutics and emergencies)

#### PREVENTIVE MEDICINE AND PUBLIC HEALTH

251. Hobson, W. (Editor): *The Theory and Practice of Public Health*. 3d ed. New York, Oxford University Press, 1969. \$27.50.
252. Kilbourne, E. D. and Smillie, W. G. (Editors): *Human Ecology and Public Health*. 4th ed. New York, Macmillan, 1969. \$12.50.
253. Sartwell, P. (Editor): *Roseneau's Preventive Medicine and Public Health*. 10th ed. New York, Appleton, 1973. In Prep.

*Comment:* Our first choice at present would be the new edition of Sartwell.

#### PSYCHIATRY

254. Detre, T. P. and Jarecki, H. G.: *Modern Psychiatric Treatment*. Philadelphia, Lippincott, 1971. \$25.00.
255. Freedman, A. M., et al.: *Modern Synopsis of Comprehensive Textbook of Psychiatry*. Baltimore, Williams and Wilkins, 1972. Paper, \$15.95. Cloth, \$20.00.
256. Kolb, L. C. (Editor): *Noyes' Modern Clinical Psychiatry*. 8th ed. Philadelphia, Saunders, 1973. \$13.00.
257. Solomon, P. and Patch, V. D. (Editors): *Handbook of Psychiatry*. 2d ed. Los Altos, Calif., Lange, 1971. \$7.50.
258. Ulett, G. A. and Goodrich, D. W.: *A Synopsis of Contemporary Psychiatry*. 5th ed. St. Louis, Mosby, 1972. \$11.50.

*Comment:* The books most frequently recommended to us by psychiatrists are those of Kolb and of Freedman.

PUBLIC HEALTH (See preventive medicine and public health)

#### PULMONARY DISEASES (Including thoracic surgery)

259. Bates, D. V., et al.: *Respiratory Function in Disease: an Introduction to the Integrated Study of the Lung*. 2d ed. Philadelphia, Saunders, 1971. \$24.00.
260. Baum, G. L. (Editor): *A Textbook of Pulmonary Disease*. 2d ed. Boston, Little, Brown, 1974. In Prep.

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261. Cherniack, R. M., *et al.*: *Respiration in Health and Disease*. 2d ed. Philadelphia, Saunders, 1972. \$14.50.
262. Crofton, J. and Douglas, A.: *Respiratory Diseases*. Philadelphia, Davis, 1969. \$27.50.
263. d'Abreu, A. L., *et al.*: *A Practice of Thoracic Surgery*. 3d ed. Baltimore, Williams & Wilkins, 1971. \$41.50.
264. Fraser, R. G. and Pare, J. A.: *Diagnosis of Diseases of the Chest: An Integrated Study Based on the Abnormal Roentgenogram*. Philadelphia, Saunders, 1970. 2 vols. \$48.00.
265. Hinshaw, H. C. and Garland, L. H.: *Diseases of the Chest*. 3d ed. Philadelphia, Saunders, 1969. \$25.00.
266. Holman, C. W. and Muschenheim, C.: *Bronchopulmonary Diseases and Related Disorders*. 2 vols. Hagerstown, Md., Harper & Row, 1972. \$60.00.
267. Lindskog, G. E.: *Thoracic and Cardiovascular Surgery with Related Pathology*. 3d ed. New York, Appleton, 1974. In Prep.
268. Shields, T. W., *et al.* (Editors): *General Thoracic Surgery*. Philadelphia, Lea & Febiger, 1972. \$45.00.

*Comment:* The new book on thoracic surgery by Shields has received good reviews. A new edition of the book of Baum is in preparation and should be good. The book of Hinshaw and Garland has been very popular, but is now out of date in a few respects.

### RADIOLOGY AND NUCLEAR MEDICINE

269. Blahd, W. H. (Editor): *Nuclear Medicine*. 2d ed. New York, McGraw-Hill, 1971. \$33.50.
270. Caffey, J.: *Pediatric X-Ray Diagnosis*. 6th ed. Chicago, Year Book, 1972. \$67.50.
271. Felson, B.: *Essentials of Chest Roentgenology*. 2d ed. Philadelphia, Saunders, 1973. In Prep.
272. Fletcher, G. H., *et al.*: *Textbook of Radiotherapy*. 2d ed. Philadelphia, Lea & Febiger, 1973. In Prep.
273. Meschan, I.: *Analysis of Roentgen Signs in General Radiology*. Philadelphia, Saunders, 1973. 2 vol. Approximately \$55.00.

274. Moss, W. T. and Brand, W. N.: *Therapeutic Radiology: Rationale, Technique, Results*. 3d ed. St. Louis, Mosby, 1969. \$25.50.
275. Paul, L. W. and Juhl, J. H.: *Essentials of Roentgen Interpretation*. 3d ed. Hagerstown, Md., Harper & Row, 1972. \$35.00.
276. Potchen, E. J., *et al.*: *Principles of Diagnostic Radiology: Companion Volume to Harrison's Principles of Internal Medicine*. New York, McGraw-Hill, 1971. \$29.50.
277. Potchen, E. J. (Editor): *Current Concepts in Radiology*. St. Louis, Mosby, 1972. \$24.75.
278. Powsner, E. R. and Raeside, D. E.: *Diagnostic Nuclear Medicine*. New York, Grune & Stratton, 1971. \$30.00.
279. Simon, G.: *Principles of Chest X-Ray Diagnosis*. 3d ed. New York, Appleton, 1971. \$23.50.
280. Sutton, D.: *Radiology for General Practitioners and Medical Students*. 2d ed. Baltimore, Williams & Wilkins, 1971. \$6.50.
281. Sutton, D.: *Textbook of Radiology*. Baltimore, Williams & Wilkins, 1973. In Prep.
282. Teplick, J. G. and Haskin, M. E.: *Roentgenologic Diagnosis: A Complement in Radiology to the Beeson and McDermott Textbook of Medicine*. 2d ed. 2 Vols. Philadelphia, Saunders, 1971. \$22.50 each vol.; Each vol. \$22.50.
283. Wagner, H. N., Jr. (Editor): *Principles of Nuclear Medicine*. 2d ed. Philadelphia, Saunders, 1974. In Prep. Approx. \$30.00.

*Comment:* Although it bears a 1969 publication date, the book of Moss and Brand is still the best general text on therapeutic radiology. The new book of Paul and Juhl on diagnostic radiology is very good. Three books on nuclear medicine are listed (Blahd, Powsner, and Wagner).

RENAL DISEASES (See kidney disease)

RHEUMATOLOGY (See arthritis and rheumatism)

SKIN (See dermatology)

SURGERY, GENERAL

284. American College of Surgeons. Committee on Pre and Post Operative Care. Kinney, J. M., et al. (Editors): *Manual of Preoperative and Postoperative care*. 2d ed. Philadelphia, Saunders, 1971. \$11.00.
285. American College of Surgeons. Committee on Trauma: *Early Care of the Injured Patient*. Philadelphia, Saunders, 1972. \$9.00.
286. Anson, B. J. and McVay, C. B.: *Surgical Anatomy*. 5th ed. Philadelphia, Saunders, 1971. 2 vols. \$45.00.
287. Boyes, J. H. (Editor): *Bunnell's Surgery of the Hand*. 5th ed. Philadelphia, Lippincott, 1970. \$36.00.
288. Condon, R. E. and Nyhus, L. M.: *Manual of Surgical Therapeutics*. 2d ed. Boston, Little, Brown, 1972. \$7.50.
289. Cope, Z.: *The Early Diagnosis of the Acute Abdomen*. 14th ed. New York, Oxford University Press, 1972. Paper, \$4.50. Cloth, \$6.95.
290. d'Abreu, A. L., et al.: *A Practice of Thoracic Surgery*. 3d ed. Baltimore, Williams & Wilkins, 1971. \$41.50.
291. Dunphy, J. E. and Botsford, T. W.: *Physical Examination of the Surgical Patient*. 4th ed. Philadelphia, Saunders, 1974. In Prep.
292. Egdahl, R. H., et al. (Editors): *Core Textbook of Surgery*. New York, Grune & Stratton, 1972. Paper, \$8.75. Cloth, \$13.75.
293. Gibbon, J. H., Jr., et al. (Editors): *Surgery of the Chest*. 2d ed. Philadelphia, Saunders, 1969. \$32.50.
294. Grabb, W. C. and Smith, J. W.: *Plastic Surgery: A Concise Guide to Clinical Practice*. 2d ed. Boston, Little, Brown, 1971. \$45.00.
295. Jones, P. G. (Editor): *Clinical Pediatric Surgery: Diagnosis and Management*. Philadelphia, Davis, 1970. \$15.00.
296. McNair, T. J. (Editor): *Hamilton Bailey's Emergency Surgery*. 9th ed. Baltimore, Williams & Wilkins, 1972. \$49.75.
297. Maingot, R.: *Abdominal Operations*. 5th ed. New York, Appleton, 1969. 2 vols. \$47.95.
298. Monafó, W. W.: *The Treatment of Burns, Principles and Practice*. St. Louis, W. H. Green, 1971. \$15.00.
299. Mustard, W. T., et al.: *Pediatric Surgery*. 2d ed. Chicago, Year Book, 1969. 2 vols. \$52.00.
300. Nealon, T. F., Jr.: *Fundamental Skills in Surgery*. 2d ed. Philadelphia, Saunders, 1971. \$11.75.
301. Nora, P. F. (Editor): *Operative Surgery: Principles and Techniques*. Philadelphia, Lea & Febiger, 1972. \$58.00.
302. Polk, H. C., Jr. and Stone, H. H.: *Contemporary Burn Management*. Boston, Little, Brown, 1971. \$19.50.
303. Rhoads, J. E., et al. (Editors): *Surgery: Principles and Practice*. 4th ed. Philadelphia, Lippincott, 1970. \$24.00.
304. Sabiston, D. C., Jr.: *Davis-Christopher Textbook of Surgery*. 10th ed. Philadelphia, Saunders, 1972. 1 vol., \$27.50; 2 vol. set, \$35.00.
305. Schwartz, S. I., et al. (Editors): *Principles of Surgery*. New York, McGraw-Hill, 1969. 1 vol., \$25.50; 2 vol. set, \$30.50.
306. Shields, T. W., et al. (Editors): *General Thoracic Surgery*. Philadelphia, Lea & Febiger, 1972. \$45.00.
307. Stahl, W. M.: *Supportive Care of the Surgical Patient*. New York, Grune & Stratton, 1972. \$13.50.
308. Wilson, J. L. (Editor): *Handbook of Surgery*. 5th ed. Los Altos, Calif., Lange, 1973. In Prep.

*Comment:* The publications of the American College of Surgeons are good. Surgeons will also want to have access to one or more anatomy books. We have listed only the book on surgical anatomy by Anson and McVay. There are, however, many recent books on anatomy and surgical anatomy that will be of interest to surgeons. The general texts of Rhoads, of Schwartz, and of Sabiston, are all good. We prefer Sabiston at present because it is quite new. Some other good books on the surgery specialties are listed under other subject headings.

THERAPEUTICS (See pharmacology and therapeutics)

TOXICOLOGY (See pharmacology and therapeutics)

TROPICAL MEDICINE (See infectious diseases, internal medicine, nutrition, pediatrics, etc.)

UROLOGY (See also kidney disease)

309. Campbell, M. F. and Harrison, J. H. (Editors): *Urology*. 3d ed. Philadelphia, Saunders, 1970. 3 vols. \$110.00.

310. Dodson, A. I.: *Urological Surgery*. 4th ed. St. Louis, Mosby, 1970. \$35.00.

311. Emmett, J. L. and Witten, D. M.: *Clinical Urography: An Atlas and Textbook of Roentgenologic Diagnosis*. 3d ed. Philadelphia, Saunders, 1971. 3 vols. \$84.00.

312. Glenn, J. F. and Boyce, W. H. (Editors): *Urologic Surgery*. Hagerstown, Md., Harper & Row, 1969. \$35.00.

313. Kaye, D.: *Urinary Tract Infection and Its Management*. St. Louis, Mosby, 1971. \$22.50.

314. Smith, D. R.: *General Urology*. 7th ed. Los Altos, Calif., Lange, 1972. \$8.50.

315. Stamey, T. A.: *Urinary Infections*. Baltimore, Williams & Wilkins, 1972. \$21.75.

316. Whitehead: *Current Operative Urology*. Hagerstown, Md., Harper & Row, 1973. About \$40.00. In Prep.

*Comment:* Probably the most useful book for urologists is the three-volume set edited by Campbell. Physicians who are not in this specialty would probably want to have a book more modest in size and price. A few of these are listed above.

X-RAY (See radiology)

OTHER GENERAL REFERENCE VOLUMES

317. *Blakiston's Gould Medical Dictionary*. 3d ed. New York, McGraw-Hill, 1972. \$15.95.

318. Chatton, M. J. and Sanazaro, P. J. (Editors): *Current Medical References*. 6th ed. Los Altos, Calif., Lange, 1970. Paper, \$12.00. Out of Print.

319. Cooper, P.: *Ward Procedures and Techniques*. New York, Appleton, 1967. Paper, \$8.15.

320. *Dorland's Illustrated Medical Dictionary*. 24th ed. Philadelphia, Saunders, 1965. \$13.50.

321. Fisher, J. C.: *Clinical Procedures: A Concise Guide for Students of Medicine*. Baltimore, Williams & Wilkins, 1970. Paper, \$3.95.

322. Gordon, B. L. (Editor): *Current Medical Information and Terminology*. Chicago, American Medical Association, 1971. \$8.00.

323. Grace, W. J., et al.: *Medical Resident's Manual*. 3d ed. New York, Appleton, 1971. Paper, \$6.75.

324. Jablonski, S. R.: *Illustrated Dictionary of Eponymic Syndromes and Diseases*. Philadelphia, Saunders, 1969. \$12.75.

325. Krupp, M. A., et al.: *Physician's Handbook*. 16th ed. Los Altos, Calif., Lange, 1970. \$6.00.

325a. List of journals available in nearest back-up medical library.

326. Magalini, S.: *Dictionary of Medical Syndromes*. Philadelphia, Lippincott, 1971. \$20.00.

327. Merck, Sharp, & Dohme Research Laboratories: *The Merck Manual of Diagnosis and Therapy*. 12th ed. Rahway, N. J., Merck, 1972, \$8.50.

328. National Library of Medicine: *Abridged Index Medicus* (monthly and annual cumulation). Washington, Government Printing Office. Monthly, \$21.50 per year; cumulation, \$12.20.

329. National Library of Medicine: *Index Medicus* (monthly and annual cumulation). Washington, Government Printing Office. Monthly, \$113.00. Cumulation, \$84.00.

330. *Stedman's Medical Dictionary*. 22d ed. Baltimore, Williams & Wilkins, 1972. \$18.50.

331. Zimmerman, C. E.: *Techniques of Patient Care*. Boston, Little, Brown, 1970. Paper, \$6.50.

*Comment:* *Current Medical References* is a very useful publication. It contains a well-indexed list of journal articles on most clinical subjects. Its only limitation is that it has not been published since 1970, and, therefore, does not cite the recent literature. At present it is out of print, but it is in most medical libraries. *The Merck Manual* continues to enjoy a justified popularity. The *Abridged Index Medicus* is potentially

useful in two ways. If a physician wishes to subscribe to the monthly issues, he can use this to identify most of the new and significant articles in any special clinical field. Usually within three months of publication, articles from the 100 leading journals are cited in the *Abridged Index Medicus* under the appropriate subject heading. While the *Abridged Index Medicus* cites less than 5% of the total literature, it includes more than 90% of the most important clinical literature. Thus in some situations the *Cumulated Abridged Index Medicus* will be a handy source to review the recent literature on a certain subject. However, only the unabridged *Index Medicus Unabridged* cites articles written before 1970. For this and other reasons-most medical libraries will also need the unabridged *Cumulated Index Medicus*. At \$12.20 yearly *Cumulated Abridged Index Medicus* is a bargain.

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**New address and phone number for:**

## **THE OKLAHOMA STATE DEPARTMENT OF HEALTH**

N.E. 10th and Stonewall

271-5454 (24 hours a day)

## RUBELLA — A RETURN

The rubella epidemic of 1963-1964 was a disaster — by any definition. An estimated 30,000 babies whose mothers contracted the disease during pregnancy suffered a wide variety of defects at birth, including hearing loss, cataracts, heart disease, and psychiatric and behavioral sequelae including mental retardation, autism, and "sequencing problems" (difficulty in placing letters, numbers or pictures in proper sequence).<sup>1</sup>

Since the mass rubella immunization campaigns of 1970, rubella has sharply decreased as a public health problem. In 1969, 1,893 cases were reported in Oklahoma. In 1972 only 45 cases were reported.

In sudden and somewhat disturbing fashion, rubella has flared again and as of May 1, 1973, over 130 cases have been reported. However, an interesting difference is evident between current outbreaks and those of the pre-rubella immunization era. Most outbreaks are occurring on college and university campuses and involving primarily persons in the 18-25 year age group.

The State Department of Health is currently involved in investigations of four such



## News From The Oklahoma State Department of Health

outbreaks of rubella in Oklahoma colleges and universities. Of considerable concern is that the age group currently involved includes many young women in the childbearing years. While clinical attack rates have not been excessively high, the numbers and distribution of cases in the outbreaks indicate significant risks of infection for susceptible persons. Inapparent, atypical, and un-reported cases increase this infection risk.

The reasons for this resurgence of rubella are not known. As soon as data are available, *The Journal* readership will be updated. Rubella should still be considered in the differential diagnosis of rash illnesses. Please report all cases to your local health department. Rubella HAI testing is available on request for diagnostic confirmation. □

### REFERENCE

Psychiatric Disorders of Children with Congenital Rubella Chess *et. al.*, Brunner/Mazel, Inc.

### COMMUNICABLE DISEASES IN OKLAHOMA FOR APRIL, 1973

Disease	April 1973	April 1972	March 1973	Total to Date	
				1973	1972
Amebiasis	10	4	—	13	12
Brucellosis	—	2	—	2	3
Chickenpox	233	22	476	939	120
Encephalitis, infect.	3	—	1	5	2
Gonorrhea	785	797	951	3543	3103
Hepatitis, infect. & serum	79	46	127	355	268
Leptospirosis	—	—	—	—	1
Malaria	1	—	—	1	2
Meningococcal infections	3	3	2	7	6
Meningitis, aseptic	11	1	2	15	21
Mumps	89	11	91	245	103
Rabies in animals	32	79	23	70	142
Rheumatic fever	2	5	2	7	4
Rocky Mt. spotted fever	4	2	—	4	3
Rubella	31	13	13	132	15
Rubella, congenital syn.	—	—	—	—	—
Rubeola	7	6	11	22	7
Salmonellosis	13	18	18	55	39
Shigellosis	30	3	23	70	19
Syphilis (infectious)	21	5	15	73	39
Tetanus	1	—	—	1	—
Tuberculosis, new active	33	30	31	110	97
Tularemia	—	1	2	6	2
Typhoid fever	—	1	—	1	1
Whooping cough	2	2	1	10	11

## **Ex-GI Drug Addicts Present Little Problem**

A nationwide study has found that very few young soldiers who took narcotics in Viet Nam have continued their addiction in civilian life. The study also presented information indicating the physical grip of heroin addiction may not be as strong as heretofore believed.

Commenting on the study, Richard S. Wilbur, MD, Assistant Secretary of Defense for Health and Environment said, "One-half of all those who reported heroin dependency in Viet Nam have withdrawn on their own." He went on to say, "We now know that recovery from heroin dependency is not impossible, and that in the case of young, healthy, well disciplined men in the Armed services, rehabilitation will be successful in the majority of cases."

A comparison between the dependence rate of Viet Nam returnees and the civilian population of young draftees and recruits was not significantly different. Doctor Wilbur estimated the number of addicts of all Viet Nam veterans at about 2,000 to 3,000 out of the 313,000 enlisted men who served in Viet Nam during the high usage period in the last several years of the war. Little heroin was used prior to this by U.S. troops.

Sighting figures that less than five percent of heroin addicts were treated successfully, the Assistant Secretary stated that the accumulated data being gathered by the Defense Department in the wake of the Viet Nam drug crisis showed that 93 percent of the men who had been identified in the service as drug users had not returned to their drug dependence upon return from Viet Nam.

The followup study indicated that only 7.2 percent of the men who had been detected as narcotic users in Viet Nam had felt narcotic dependence at anytime since they returned. Wilbur stated, "A followup of Viet Nam drug users (has caused) us to re-examine the old beliefs more critically."

The inservice treatment programs have

handled more than 70,000 men for drug abuse with more than 59,000 either restored to duty or released from active service following successful rehabilitation. More than 6,000 men remained in short term rehabilitation and 4,000 more had been referred to the Veterans Administration for lengthier treatment at the end of their service tour according to Assistant Secretary Wilbur. □

## **Physician Held Not Liable For Unnecessary Hospitalization**

A lawsuit that could have been a landmark case has been decided in favor of the physician involved. The lawsuit, in which it was hoped to establish the medical-legal landmark that a physician is responsible for the cost of unnecessary hospital services he orders, came about when Philadelphia Blue Cross refused to honor a patient's bill for hospital room and board.

Physicians employed by the Blue Cross Plan of Greater Philadelphia had held that a patient had received no treatment or tests which could not have been done on an outpatient basis. They paid, therefore, for the tests but refused to pay for room and board. The hospital billed the patient and brought suit when payment was refused.

A Philadelphia municipal court judge made national headlines when he originally heard the case. At that time he ruled that although the patient was liable to the hospital for his bills, the physician was liable to the patient in that same amount. His ruling was based on the theory that the physician had not used reasonable care in ordering the services and had thereby injured his patient financially.

When the case was appealed, the higher court ruled that the physician had no contractual obligation for the patient's hospital bill and could be held liable only if he was shown negligent in some way. The physician's attorney had argued that a physician is not required to be infallible, and that he had acted in what he thought was the patient's best interest in hospitalizing her.

When the physician was subsequently exonerated of any charges of negligence or malpractice he was dismissed as a defendant in the suit. The jury then ruled that the Blue Cross Plan was responsible for the patient's bill. □

## PEER REVIEW FUNCTION

### I. PURPOSE:

The Peer Review Committee of the Oklahoma State Medical Association, and similar committees created by component societies of the state association, shall serve the function of seeking the objective reconciliation of unusual medical insurance claims involving members of the OSMA and health insurance coverages which offer payment of customary and reasonable fees.

### II. ORGANIZATION:

*OSMA Committee:* The state association committee, to be appointed annually by the President, shall be comprised of a chairman, two vice-chairmen and at least twenty additional members selected geographically and by type of practice.

The committee shall be divided into two subcommittees of equal size. The subcommittees will meet on alternate months.

*Quorum:* A vice-chairman shall preside over each meeting. A simple majority of subcommittee members shall be required before and decision may be made by a subcommittee.

### III. REVIEW PROCEDURES:

*A. Conditions Prerequisite to Peer Review:* The following conditions must be met prior to a case being submitted for peer review;

1. Other appropriate avenues of settlement must have been attempted by the carrier directly with the physician prior to requesting peer review, including either correspondence or telephone consultation, or personal visitation.

2. The patient (if applicable) and the physician, (in every case) should be advised in writing by the carrier that there will be an administrative delay in final settlement of the claim. The letter to the patient should not include the statement that a review of charges or utilization is in process, but the physician should be advised by the carrier that the unusual nature of the claim requires its submittance for review by the Peer Review Committee.

3. A "Peer Review Summary" form, five complete sets of the claim forms in question and any other necessary medical record information should be furnished to the

OSMA Peer Review Committee, 601 N. W. Expressway, Oklahoma City, Oklahoma 73118.

### IV. REVIEW PROCESS:

1. When a properly filed and documented case is received the OSMA shall immediately schedule it for a specific hearing date, provided that cases received less than fifteen days (excluding weekends) prior to the next scheduled meeting shall be deferred to the meeting scheduled for the following month.

2. Upon receipt of a case to be reviewed, the physician involved and the chairman of the county society review committee where the physician resides shall be notified. Both shall be furnished complete copies of the material which has been provided in documentation of the case, and both shall be invited to attend the subcommittee hearing. The county society review committee shall be invited to furnish a written opinion for consideration by the state committee.

3. In addition to hearing and taking action on cases filed by carriers or insurance companies, the Peer Review Committee shall also receive cases filed by a member of the association against a carrier or company, and cases by a patient against a physician.

4. The committee shall have the obligation of finding in favor or against the amount of charges or the quantity and/or medical necessity of the services provided. In each claim reviewed the state committee has the obligation of recommending a reasonable settlement.

### V. RECIPROCAL RESPONSIBILITY:

The OSMA Peer Review Committee can only be effective if its decisions are honored by the organizations or persons who are directly involved in the adjudication of questioned claims.

### VI. DISCIPLINARY JURISDICTION:

The Peer Review Committee of the OSMA shall not function as a disciplinary body, but it does have the obligation to file charges with the association's Grievance Committee, or Board of Censors of a county medical society, when warranted by the circumstances of a particular case involving the conduct of an association member. ☐

**Proceedings of the 67th Annual Session of the House of Delegates  
of the  
Oklahoma State Medical Association**

*OPENING SESSION*

**I. CALL TO ORDER:**

The House of Delegates convened its 67th Annual Session in the Fairmont Mayo Hotel, Tulsa, Oklahoma on April 26, 1973. The speaker, Roger J. Reid, MD, Ardmore, called the meeting to order at 7:20 p.m. at which time an AMA film "Ruptured Tree" was shown.

**II. INVOCATION:**

Martin Andrews, MD, Oklahoma City, delivered the invocation.

**III. REPORT OF THE CREDENTIALS COMMITTEE:**

The presence of a quorum was reported by Ann K. Kent, MD, Muskogee.

**IV. ANNOUNCEMENTS:**

Doctor Reid announced the appointment of the following committees to assist in the conduct of the meeting:

*Credentials Committee*

Ann K. Kent, MD, Muskogee, Chairman  
Duane E. Brothers, MD, Tulsa  
R. Leroy Carpenter, MD, Oklahoma City  
Clayton E. Woodard, MD, Tulsa

*Sergeants-at-Arms*

Frank Clark, MD, Ardmore, Chairman  
Ray V. McIntyre, MD, Kingfisher

*Tellers*

Henry H. Modrak, MD, Tulsa  
Orange M. Welborn, MD, Ada  
Jack W. Parrish, MD, Seminole

*Reference Committee No. I*

Orange M. Welborn, MD, Ada, Chairman  
Robert J. Morgan, MD, Blackwell  
Donald F. Mauritsen, MD, Tulsa  
William M. Leebron, MD, Elk City  
Richard Witt, MD, Muskogee  
Edwin C. Yeary, MD, Ponca City  
Leon D. Combs, MD, Shawnee  
David Carson, MD, Fairland  
Robert R. Hillis, MD, Lawton  
David Mitchell, MD, Madill  
Recording Secretary, *Don Blair*

*Reference Committee No. II*

Jack L. Richardson, MD, Tulsa, Chairman  
William A. Matthey, MD, Lawton  
Thomas S. Gafford, MD, Muskogee  
John M. Moore, MD, Pauls Valley  
R. W. Goen, MD, Tulsa  
O. H. Patterson, MD, Sapulpa  
Joseph W. Stafford, MD, Enid  
M. K. Braly, MD, Woodward  
Recording Secretary, *David Biskham*

*Reference Committee No. III*

John A. McIntyre, MD, Enid, Chairman  
John W. DeVore, MD, Oklahoma City  
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Francis R. First, MD, Checotah  
Alfred T. Baker, MD, Durant  
Recording Secretary, *Ed Kelsay*  
*Reference Committee No. IV*  
Kent Braden, MD, Oklahoma City, Chair-  
man

Thomas Rhea, MD, Idabel  
Ross Deputy, MD, Clinton  
Paul A. Bischoff, MD, Tulsa  
Richard F. Harper, MD, Pawhuska  
James P. Jobe, MD, El Reno  
Joe W. McCauley, MD, McAlester  
Paul N. Vann, MD, Lawton  
Jack D. Honaker, MD, Frederick  
Thomas L. Moffeit, MD, Holdenville  
John R. Reid, Jr., MD, Nowata  
Recording Secretary, *Betty Mahoney*

**V. INTRODUCTION OF GUESTS:**

Mrs. Port Johnson, Retiring President, Woman's Auxiliary to the Oklahoma State Medical Association; Mrs. Robert Beckley, Lock Haven, Pennsylvania, President, Woman's Auxiliary to the American Medical Association; Mrs. Erle Wilkinson, Nashville, Tennessee, President, Woman's Auxiliary to the Southern Medical Association; and Mrs. Virgil Ray Forester, Regional Vice-President, Woman's Auxiliary to the American Medical Association were introduced and brought greetings to the House of Delegates.

Doctor S. S. Sanbar, on behalf of the Hypertension-Hyperlipidemia Drive of the Oklahoma Heart Association, expressed his appreciation to the House of Delegates for allowing him time to explain briefly about the drive. Doctor Sanbar stated that the drive will be aimed at the following:

1. Identifying patients with high blood pressure or cholesterol;
2. Notifying these persons and their respective physicians of the abnormal values obtained and the need for therapy;
3. Educating such persons and seeking their physicians' help to aggressively treat these disorders, and
4. Providing means of follow-up of these patients.

Doctor Sanbar stated that the Oklahoma Heart Association has obtained approval for this drive from the President and Board of Trustees of the OSMA, Oklahoma County and Tulsa County Medical Societies and the Dental Society. Doctor Sanbar expressed his hope that the OSMA will lend active support to the project.

(Continued on Page 268)



## ATTENDING THE OSMA ANNUAL MEETING

At the left, Charles A. Hoffman, MD, President of the AMA, is shown admiring the medal of the OSMA seal, which he presented to C. Riley Strong, MD, El Reno, newly installed President of the OSMA.

Stanley R. McCampbell, MD, outgoing President of the OSMA is pictured at the right receiving a plaque in appreciation of his services from President Strong.



Doctor and Mrs. McCampbell, Oklahoma City, are seen at the left enjoying festivities during the inaugural dinner-dance.

Doctor and Mrs. Jack L. Richardson, Tulsa, are shown at the right visiting with Mrs. Charles A. Hoffman, (back to the camera), wife of the AMA President. Doctor Richardson was named President-Elect of the OSMA during the convention.





Henry K. Speed, MD, Sayre, OSMA's oldest living Past-President is shown at the left during the annual breakfast for all association Past-Presidents. Also shown at the event are George H. Garrison, MD, Oklahoma City, (center) and Hillard E. Denyer, MD, Bartlesville.

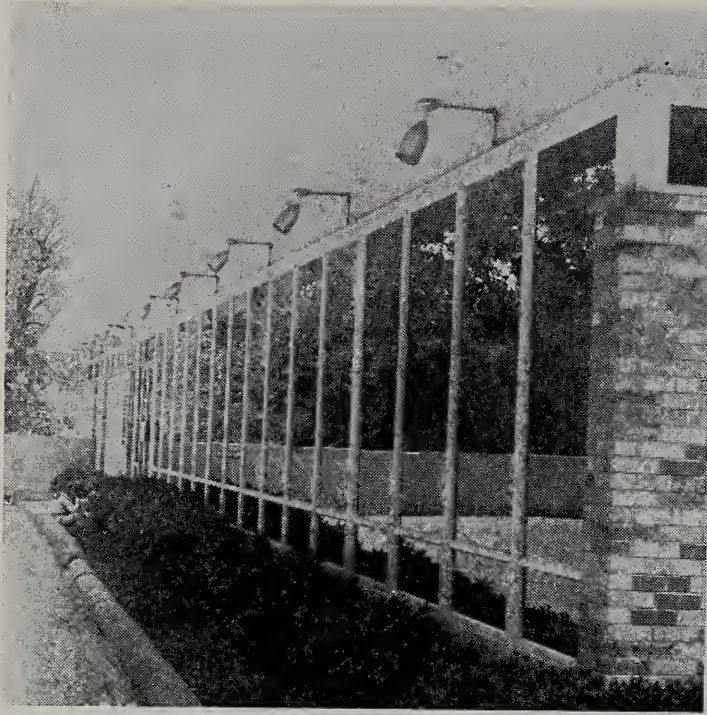
Reference Committee III is shown during Friday morning session.



Charles A. Hoffman, MD, AMA President, addresses a Saturday afternoon session of the meeting.

Attending the House of Delegates meeting are (l to r) C. Riley Strong, MD, El Reno, OSMA President-Elect, Kent Braden, MD, Oklahoma City, Barton Carl, MD, Oklahoma City and Elvin M. Amen, MD, Bartlesville.





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**Long and Ribicoff Join  
In NHI Support**

The unlikely combination of a conservative and a liberal supporting the same national health insurance bill is now a reality. Senator Abraham Ribicoff (D-Conn) has joined with Senator Russell Long (D-La.) in advancing a national health insurance plan.

Ribicoff, a noted liberal, plans to co-sponsor with the conservative Long a Medicaid substitute that would provide basic health insurance benefits for low income individuals and families. He also is supporting Long's proposal for a catastrophic illness insurance plan.

Washington observers have been saying for some time that if Russell Long, Chairman of the powerful Senate Finance Committee, could develop support for his proposal, it would have an excellent chance of becoming the law.

Long and Ribicoff are looking for more sponsors for the two part plan which they believe is realistic enough to win Congressional approval. In a Louisiana television interview Senator Long said that if the current Congress doesn't enact a national health insurance plan, it will be because the President vetoed it. He also stated that if the House of Representatives doesn't send a NHI bill to the Senate, he will go ahead with his own plan by amending it to an unrelated tax bill.

**Continuing Education  
Record Keeping Asked**

All OSMA members have been asked to voluntarily keep records of the continuing medical education courses they attend during the next calendar year, beginning January 1st, 1974.

The request was made officially by the members of the OSMA House of Delegates during its annual meeting in Tulsa in late April. A report form is to be designed and approved by the OSMA's Council on Professional Education to assist members in reporting their attendance at the various courses.

Purpose of the voluntary report keeping would be to allow the Council to evaluate the reports and then make a recommendation to the OSMA House of Delegates at its annual meeting in 1975 on whether the association should require continuing education as a pre-

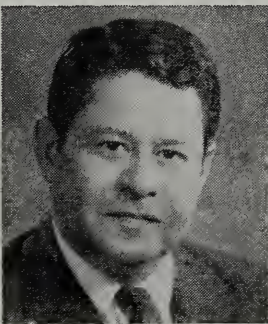
requisite to continued membership in the association.

One state already makes continuing education a prerequisite to maintaining one's medical license, while another has adopted a similar rule for membership in the association.

As soon as the report form is finalized by the OSMA Council on Professional Education, it will be distributed to all members of the association.

C. Riley Strong, MD, President of the Oklahoma State Medical Association, has asked Kenneth Whittington, MD, to serve as Chairman of the association's Council on Professional Education. Fourteen other physicians have been asked to serve on the council representing all quadrants of the state and the two metropolitan areas. □

**Riley Named Editor of  
Southern Medical Journal**



One of the editors of *The Journal of the Oklahoma State Medical Association* has been named editor of the *Southern Medical Journal*. Harris D. Riley, Jr., MD, professor of pediatrics and head of the Department of Pediatrics, University of Oklahoma College of Medicine and Pediatrician-in-Chief of the Children's Memorial Hospital, University of Oklahoma Health Sciences Center has previously served as pediatric editor, assistant and associate editor of the Southern Medical Association publication.

Published monthly, the Southern Medical Journal is a periodical for physicians and students who want to keep up-to-date on the very latest techniques and who are interested in the practice of better medicine.

A graduate from Vanderbilt University School of Medicine, Doctor Riley is consultant to several organizations including the National Institute of Child Health, the U.S. Public Health Service, the Communicable Disease Center and the U.S. Army Medical Corps. He is certified by the American Board of Pediatrics and holds memberships in many medical and scientific organizations. □

## Deaths

### GRIDER PENICK, MD

1895-1973

Grider Penick, MD, a long-time Oklahoma City gynecologist, died May 2nd, 1973. Born in Marshall, Missouri, Doctor Penick was a 1920 graduate of Washington University Medical School and served as professor of gynecology at the University of Oklahoma College of Medicine for 20 years.

He was a Life Member of both the Oklahoma State Medical Association and the American College of Surgeons.

### JAMES W. CHILDS, MD

1880-1973

Retired, Tulsa physician, James W. Childs, MD, died May 7th, 1973. Doctor Childs, 93, was born in Can-

ton, Texas. He was graduated from White's Medical College in 1908 and began his practice in Washington, Oklahoma. He moved to Tulsa in 1915 where he practiced until his retirement in 1964.

Doctor Childs had been a Life Member of the OSMA since 1951.

### BEN M. HUCKABAY, MD

1886-1973

Ben M. Huckabay, MD, Antlers physician for over 65 years, died May 7th, 1973. A native of Greenville, Texas, Doctor Huckabay received his medical degree from Baylor University College of Medicine and established his practice in Antlers in 1909. He was a Life Member of the Oklahoma State Medical Association. □

## AMA President Attacks Malpractice Report

A vigorous dissent to a federal Commission on Medical Malpractice Report has been filed by Carl A. Hoffman, MD, President of the American Medical Association. The report, which blamed physicians and hospitals for most malpractice problems, included about 100 findings and recommendations.

A central finding of the special commission was that injuries to patients, and not contingency fee lawyers, are the reason for the increased number of malpractice claims.

Doctor Hoffman, one of the twenty-one members of the commission, said that the panel had failed in its primary purpose to come up with a program "calculated to ameliorate" the nation's malpractice problems. He went on to say that some of the commission's recommendations, if implemented, would likely stimulate an increased frequency of claims. "The increasing frequency in cost of claims," he said, "has unavoidable adverse effect on health care . . .".

He went on to say, "In the United States, people have always been quick to file lawsuits for any injury, real or imagined. The

legal system encourages litigation. There is a definite trend in court decisions to make it continually easier for claimants to recover substantial damages, with less and less proof of fault.

"This trend is well established in all fields of activity including automobile liability, product liability, airline and rail liability, home owners liability and all others. Malpractice liability is the most visible and harmful part of this trend, because it affects the vital area of health care."

A part of this trend can be found in the establishment of certain legal doctrines which apply only in lawsuits against health care providers. President Hoffman pointed out that these make it easier for claimants to recover damages with little proof of fault. These doctrines include: (a) the "discovery" rule under the statute of limitations; (b) the application of the doctrine of *res ipsa loquitur* in injuries arising out of the performance of professional services; (c) the doctrine of "informed consent" and (d) a rule allowing liability based on an alleged oral agreement of good results.

"If this trend continues unchecked," the AMA President said, "the logical results will be that health care providers will be held

liable for any unfortunate result arising from health care, even if there was no fault on the part of anyone and the result was entirely unavoidable."

The West Virginia urologist stated, "The report stresses the obvious fact that there would be no claims if there were no injuries. Where surgery or potent drugs are required, the risk of injury is unavoidable. Only a small percentage of the injuries, however, are caused by the negligence of anyone."

He then went on to point out that the report does contain some constructive recommendations. These include: (a) development of injury prevention programs, (b) study of alternative compensation systems and (c) data collection, if limited by careful cost justification. □

## **Legislature Honors Doctors Medearis and Heflin**

In the closing days of the first session of the 34th Oklahoma Legislature, it chose to honor two Oklahoma physicians for their outstanding service to their state and local communities.

P. H. Medearis, MD, Tahlequah, and W. A. Heflin, MD, Ryan were honored in separate resolutions. Senate resolution #58 authored by Senators Lane, Field, Dahl, and Representative Willis was introduced to commend and honor Doctor P. H. Medearis. House Resolution #1072 authored by Representative Bradley, commended Doctor Heflin and the Lyons Club of Ryan, Oklahoma.

In the resolution commending Doctor Medearis it stated that he "deserves commendation and honor for medical service to his patients and for residing and being in Cherokee County since 1920 and the two years before that in Adair County." It then goes on to set out many of the highlights of Doctor Medearis' career. It stated that "in the 55 years since Doctor Medearis began his medical practice he has seen much change in medicine beginning by carrying his own compounded drugs in a little black bag and in travel for practicing medicine, from horseback, to buggy, to automobile . . .".

The resolution went on to state that the physician had been tireless in his civic endeavors, just as he was tireless in caring

for his patients. He is the only surviving charter member of the Tahlequah Kiwanis Club, is past-president and is currently Chairman of the Board of the Savings and Loan Association, and is an elder in the First Presbyterian Church of Tahlequah.

Doctor Medearis' arrival in Tahlequah, with his new bride, succeeded by only one day the devastating 1920 cyclone which was responsible for much death and injury. "The immediate demand for a doctor's services and time was but a prelude to the sacrifices the doctor's wife makes of her husband's association," the resolution stated, "but Carolyn Medearis was a sensible as well as a beautiful and gracious lady and made adjustments in the routine of living. During the 53 years of marriage, three children were born of the union, the two surviving being Sue, the wife of Sidney Wiley, and Robert P. (Bob) Medearis, highly respected state senator . . ." The final resolve of the resolution states, "that Doctor P. H. Medearis, Tahlequah, Oklahoma, is commended for his continuous professional service to the people who became, or are, his patients, and honor is accorded him for his exemplary citizenship."

Doctor Medearis is a life member of the Oklahoma State Medical Association.

The resolution honoring Doctor W. A. Heflin, came about when the doctor undertook the training of 25 volunteers in an emergency medical technician-ambulance training program.

The Lyons Club of Ryan, Oklahoma, voluntarily assumed responsibility for their communities ambulance service on March 5th, 1973. At that time 25 persons volunteered to provide emergency medical services for the community. Doctor W. A. Heflin, provided the volunteers a 72 hour EMT training program designed by the Oklahoma Trauma Research Society.

The final resolve of the resolution stated, "that the Lyons Club of Ryan, Oklahoma; W. A. Heflin, MD; twenty-five volunteer emergency medical technicians-ambulance, Ryan, Oklahoma; and the Oklahoma Trauma Research Society be commended for their efforts in the provision and improvement of emergency care and transportation to the community of Ryan and the surrounding area." □

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**Opposition to PSRO  
Beginning to Mount**

Opposition to implementation of the Professional Standards Review Organization law is beginning to mount. Numerous resolutions will be introduced along this line for consideration by the American Medical Association's House of Delegates during its late June meeting.

Southwestern states, including Oklahoma, are cited as leaders in the movement. Both Texas and Louisiana have taken strong stands on the subject and opposition has been heard from Nebraska.

The Texas Medical Association passed a resolution instructing the TMA to work for repeal of the PSRO section of Public Law 92-603. It is possible that a repeal resolution will be introduced in the AMA House of Delegates from Texas.

Washington and AMA observers feel that there is only faint hope that such a resolution would pass the AMA House of Delegates. Even if it did, the chances of the AMA being able to mount a successful repeal fight is extremely doubtful, since they were not able to prevent the original enactment of the bill.

TMA House of Delegates, while unanimously supporting repeal of PSRO, also authorized creation and support of an organization that qualifies under all applicable laws to perform the functions of a PSRO throughout Texas under a single organization. Another resolution adopted by TMA

instructed its Board of Trustees to do whatever it could to persuade the Health Education and Welfare Department to designate the entire state of Texas as a single PSRO area.

Louisiana, during its annual meeting, reaffirmed a policy that prohibits the society from entering into any contractual agreement with government agencies. This would eliminate the possibility that the Louisiana State Medical Society could contract to become a PSRO, Health Maintenance Organization, or any other quasi-governmental agency. However, the resolution would not prevent the society from establishing a separate foundation to qualify for a PSRO or an HMO.

Delegates to the Nebraska Medical Association Annual Meeting adopted a resolution calling for repeal of PSRO. The resolution quoted a statement by the Father of PSRO, Senator Wallace Bennett (R-Utah), who said that PSRO "failure should result only from a lack of will on the part of physicians to do the job." The resolution pointed out that this statement places the blame for PSRO failure on physicians before the program even starts. The resolution added, "PSRO is contrary to existing principles in medical practice . . .".

Other news regarding PSROs indicates the HEW is now convinced that the PSRO areas cannot be named before late November of this year. A department spokesman had previously stated that the regulations would come out in piecemeal fashion over the next two or three years. □

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**Direct Medicare Billing  
Encouraged By House**

Delegates to the OSMA House of Delegates Annual Meeting in late April unanimously adopted a resolution to encourage all members to direct bill their Medicare patients.

The resolution submitted by Ray V. McIntyre, MD, of Kingfisher, resolved that the OSMA reaffirm its opposition to its members accepting assignment from third parties. The resolution went on to state that the accepting of assignment tends to interfere with the doctor-patient relationship.

The resolution, as adopted by the House, pointed out that the setting of fees in the course of treatment had traditionally been a matter exclusively between the physician and his patient. However, the accepting of assignment injects a third party into the process, often to the detriment of the physician and patient.



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## Book Reviews

**Educating Personnel for the Allied Health Professions and Services.** Ed. by Edmund J. McTernan, MPH, Dean, School of Allied Health Professions, State University of New York Health Sciences Center at Stony Brook and Robert O. Hawkins, Jr., EdM, Associate Dean, School of Allied Health Professions, Health Sciences Center, State University of New York at Stony Brook. Cloth, 219 pp., with 36 tables and figures. St. Louis: The C. V. Mosby Company, 1972. \$10.50

Administrative tasks essential to effective implementation of educational programs are the subject matter of this book. In their preface, the editors urged the contributing authors to emphasize principles rather than specifics. The resulting approach to such topics as organizing, developing, budgeting and financing, and student and faculty affairs produced a manual applicable generally to many fields and specifically to allied health.

The basic tenets for operation of an educational program are presented in such a manner as to expose the reader to information which should improve considerably his ability to plan. For example, one chapter entitled, "Planning the Curriculum," enumerates the fundamental requirements and steps in accomplishing this important academic task. In addition, it offers a "methodology for planning a program or course of study" that is essentially a check list of procedures.

Although the material in this book is generic in nature, it acquires specificity relative to allied health in three ways. The first method involves the use of examples from allied health to illustrate more general concepts. These examples may cover as much as a section of a chapter, such as patient care in the chapter on "Electronic Data Processing," or they may be more restricted.

Another means of focus employed by the authors is the provision of reference lists pertinent to the field. An appendix to the chapter on instructional technology offers a list of producers and publishers of educational materials in the allied health field and their addresses.

The last, and perhaps the most obvious,

way of directing attention to the allied health field is the assignment of entire chapters to material specific to allied health. Matters of special interest to allied health comprise the chapters of the final section of the book, and a few of the earlier chapters focus on such subjects as governmental support for allied health education.

As a survey of administrative details that must be considered in organizing for and implementing educational programs, *Educating Personnel for the Allied Health Professions and Services* may be a valuable reference book for either the administrator or the educator. *Jephtha W. Dalston, PhD.*

**Medical Education in Oklahoma: The University of Oklahoma School of Medicine and Medical Center, 1900-1931.** By Mark R. Everett, PhD, Dean Emeritus, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma. Hardback, 305 pp., illustrated. Norman: University of Oklahoma Press, 1972. \$9.95.

Doctor Mark R. Everett, who in 1924 came to the Oklahoma School of Medicine as Chairman of its newly created Department of Biochemistry and Pharmacology and who was its Dean from 1947 to 1964, has done an excellent job in presenting the first documented and well illustrated history of the University of Oklahoma School of Medicine from its earliest beginnings in 1900 to 1931. It must have been a labor of love to collect the data which he assembled from widely scattered sources, including minutes of meetings of the Legislature, the State Board of Education, the University Regents, University catalogs, State Medical Journals, newspapers, magazines and personal interviews.

For the first few years, only the Basic Sciences were taught at the University in Norman, qualifying the student for the two year study of clinical subjects, taught elsewhere at accredited medical schools. In addition to the problems of older schools, which were part of well established universities, the Oklahoma School faced the problem of integrating with a newly created and rather poorly financed University that was located not in a state, but in the Oklahoma Territory, with very limited fiscal resources and broad exposure to political influences and in-

trigues, originating in Washington as well as locally.

During the period in which Oklahoma achieved statehood, the University was subjected to numerous political upheavals, which were reflected in the financial state and overall instability of our two year school.

During the first tempestuous years of statehood, the School of Medicine made little progress. In 1910, the Carnegie Foundation completed a survey of all medical schools in the U.S. and Canada, and published what became known as the *Flexner Report*. This survey had a tremendous impact on medical education in the U.S., resulting in the closure of many proprietary schools in the country and the upgrading of prerequisites for entrance into the medical school with elevation of its standards. The report rated the O.U. School of Medicine as acceptable, while previously established proprietary schools in Oklahoma City and in Guthrie gradually collapsed or were terminated after the *Flexner Report*. The remains of the Epworth College of Medicine, in Oklahoma City merged by affiliation with the O.U. School of Medicine, resulting in a four year medical course.

After many political upheavals that led to dismissal and sometimes reinstatement of a number of clinical faculty members, the Medical School in 1911 accomplished the great feat of renting its own University Hospital with a training school for nurses, a library, clinical laboratories, and an Out-Patient Department. It also affiliated in its teaching department with St. Anthony Hospital and the Holmes Home of Redeeming Love. In the same year, 15 graduates received the first MD degrees given by the University of Oklahoma. In the next few years there were a number of regressive changes, so that the Medical School was reclassified as a "B" rated school and that there was a financial stalemate, which finally resulted in a threat from the National Council on Medical Education of further lowering of the school's rating.

With the coming in 1915 of Dean LeRoy Long, who rightly can be regarded as founding father of a medical school worthy of its name, an able new governor, R. Williams,

and an imaginative university president, Doctor Brooks, the school received a class "A" rating. Through skillful handling of the political forces and the medical community in the State, the school finally received its new university teaching hospital in its present location (1919). A Veteran's Ward and a Nurse's Home were added later. Finally, in 1928, as a crowning achievement, the new School of Medicine Building for the Basic Sciences and administrative facilities was constructed, as well as the new Crippled Children's Hospital.

Doctor Long was not only a fine medical executive with great political and administrative skill, but also a nationally known, scholarly surgeon. Political machinations under Governor William H. Murray forced Doctor Long's resignation in 1931 after 16 years of outstanding service as Dean. A new, able and cultured Dean, Doctor L. J. Moorman, was appointed. Rather interesting is a comparison of data between the years 1900 and 1931, with which the book closes. In 1900 there were three faculty members and eight medical students; in 1931 there were 147 faculty members and 238 medical students as well as 141 nursing students. The budget for all facilities was \$1,300 in 1900 and over \$668,000 in 1930. By 1931, a total of 509 physicians had been graduated from the School of Medicine.

The book is replete with pictures of outstanding faculty members, administrators, and political figures. In this review stress has been laid on the progress made during these more than 30 years. The negative features have not been discussed in detail, but one is reminded of the French proverb: "The more things change, the more they remain the same." Like the poor, crises are still with us, particularly under-financing, extraneous political influences, changing admission requirements and minority admission problems, some town and gown friction and the justified complaint that our graduates, on the whole, are unwilling to locate in rural areas where they are most needed.

It can be assumed that when the definitive history of medical education in the U.S. in the first third of this century is written, this chronicle, like a mosaic, will contribute its important share to the total picture.  
*Ernest Lachman, MD.* □

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**LOCUM TENENS.** 1967 OU graduate is available for month of August. Is presently completing general surgery residency. Contact Daniel William Tubb, Maj. MC, 238F Craig Road, A.P.O. San Francisco 96438.

**PHYSICIANS AND STAFF PSYCHIATRISTS.** Psychiatry service of university affiliated VA Hospital. Salary range to \$34,971 plus fringe benefits depending on qualifications. Current unrestricted license in any State of U.S. required. Research and teaching opportunities and university medical faculty appointments available. Contact Chief of Staff, North Little Rock Division, VAH, Little Rock, Arkansas. Phone 501 372-8361, Ext. 601. An equal opportunity employer. □

(Continued from Page 255)

Mr. Don Blair, Executive Director of the Oklahoma State Medical Association, gave special thanks to Doctors Adelson and Nettles for their splendid job in organizing the 1973 annual meeting. Mr. Blair stated that the total income was between \$28,000-\$29,000, and the output between \$26,000-\$27,000.

Mr. Blair urged everyone to attend the Saturday meetings with Doctor C. A. Hoffman, President, American Medical Association, and with Roger Harrison and Tom Zirkle, professional management consultants.

Doctor Stanley R. McCampbell, OSMA President, introduced Doctor Robert Bird, Dean, University of Oklahoma Health Sciences Center, and presented him with an AMA-ERF check in the amount of \$11,321.22, and a check for a student loan fund in the amount of \$5,055.

Doctor Bird reported briefly on the current affairs of the Health Sciences Center and expressed his appreciation for the contributions made to the College of Medicine.

Doctor C. A. Hoffman, President, American Medical Association, expressed his thanks and appreciation for the privilege of attending the 1973 OSMA Annual Meeting.

Doctor Reid introduced Kathy Musson and Betty Mahoney as the transcribing secretaries.

#### VI. ANNOUNCEMENTS:

Doctor Reid announced that the 1974 annual meeting will be held in Oklahoma City's Skirvin Hotel Convention Center, May 16, 17, 18, 1974.

Doctor Reid stated that Reference Committees will meet on Friday morning at 9:00 a.m. in rooms situated on the 3rd and 4th floors of the Tulsa Assembly Center. The closing session of the House is scheduled for Saturday morning at 8:30 a.m. in the Assembly Center.

#### VII. APPROVAL OF THE MINUTES:

The Speaker asked the pleasure of the House regarding the reading of the minutes of the last annual meeting.

*A motion was made that the minutes be approved as published in The Journal of the Oklahoma State Medical Association. The motion was seconded and it carried.*

#### VIII. RECESS FOR CAUCUS OF TRUSTEE DISTRICTS:

Doctor Reid announced the House would recess for ten minutes for all Trustee Districts I, II, III, IV, V and X to caucus.

#### IX. NOMINATIONS OF OFFICERS:

The House was declared open for the nominations for the position of PRESIDENT-ELECT (One-year term of office).

Jack L. Richardson, MD, Tulsa, was nominated by the Tulsa County Medical Society.

Nominations were declared closed.

Nominations were declared open for the position of VICE-PRESIDENT (One-year term of office).

Arnold G. Nelson, MD, Midwest City, was nominated by Kenneth Whittington, MD, Bethany.

Nominations were declared closed.

Nominations were declared open for the position of SECRETARY-TREASURER (Two-year term of office).

Haven W. Mankin, MD, Oklahoma City, was nominated by Art Elliott, MD, Oklahoma City.

Nominations were declared closed.

Nominations were declared open for the position of DELEGATE TO THE AMA (Two-year term of office).

Ed L. Calhoon, MD, Beaver, was nominated by M. K. Braly, MD, Woodward.

Nominations were declared closed.

Nominations were declared open for the position of ALTERNATE DELEGATE TO THE AMA (Two-year term).

M. Joe Crosthwait, MD, Midwest City, was nominated by Martin Andrews, MD, Oklahoma City.

Nominations were declared closed.

#### X. NOMINATIONS OF TRUSTEES AND ALTERNATE TRUSTEES:

Nominations were declared open for TRUSTEE AND ALTERNATE TRUSTEE for the following Trustee Districts (three-year term of office):

##### DISTRICT I.

Reporting on the caucus of representatives from District I, the following nominations were made:

Jess D. Green, MD, Bartlesville, was nominated for the position of Trustee and Edward W. Allensworth, MD, Vinita, was nominated for the position of Alternate Trustee.

##### DISTRICT II

Thomas C. Glasscock, MD, Ponca City, was nominated for the position of Trustee and Richard F. Harper, MD, Pawhuska, was nominated for the position of Alternate Trustee.

##### DISTRICT III

Joe B. Jarman, Jr., MD, Enid, nominated John A. McIntyre, MD, Enid, for the position of Trustee and Robert J. Hogue Jr., MD, Guthrie, nominated Ray V. McIntyre, MD, Kingfisher, for the position of Alternate Trustee.

##### DISTRICT IV

Ed L. Calhoon, MD, Beaver, nominated John X. Blender, MD, Cherokee, for the position of Trustee and Richard H. Burgtorf, MD, Shattuck, for the position of Alternate Trustee.

#### DISTRICT V

James P. Jobe, MD, El Reno, nominated *Ross Deputy, MD*, Clinton, for the position of Trustee and *F. W. Hollingsworth, MD*, El Reno, for the position of Alternate Trustee.

#### DISTRICT X

Doctor George M. Brown, Jr., McAlester, nominated *Delta W. Bridges, Jr., MD*, McAlester, for the position of Alternate Trustee.

#### XI. REPORT OF THE PRESIDENT:

Doctor Stanley R. McCampbell, presented his report and it was referred to Reference Committee No. I (A copy of the report is attached and made a part of the minutes).

#### XII. REPORT OF THE BOARD OF TRUSTEES:

M. Joe Crosthwait, MD, Chairman, Board of Trustees, presented the Board of Trustees Report and the Supplemental Report. Both reports were referred to Reference Committee No. I. (Copies of the reports are attached and made a part of the minutes).

#### XIII. REPORT OF THE SECRETARY-TREASURER:

Haven W. Mankin, MD, Secretary-Treasurer, presented the Secretary-Treasurer's Report and it was referred to Reference Committee No. I. (A copy of the report is attached and made a part of the minutes).

#### XIV. COUNCIL AND COMMITTEE REPORTS :

The Speaker stated that the House of Delegates received the following reports and they are referred to the designated reference committees. (Copies of the reports are attached and made a part of the minutes).

*Committee on Planning.* Lucien M. Pascucci, MD, Chairman, referred to Reference Committee No. I.

*Financial Aid to Education Committee.* H. E. Denyer, MD, Chairman, referred to Reference Committee No. I.

*Medical School Liaison Committee.* Harold W. Calhoon, MD, Chairman, referred to Reference Committee No. I.

*Constitution and Bylaws Committee.* George H. Garrison, MD, Chairman, referred to Reference Committee No. I.

*Council on Insurance.* C. Alton Brown, MD, Chairman, referred to Reference Committee No. IV.

*Council on Professional Education.* Robert J. Hogue, Jr., MD, Chairman, referred to Reference Committee No. II.

*Council on Professional and Intervocational Relations.* Orange M. Welborn, MD, Chairman, referred to Reference Committee No. III.

*Council on Public Health.* Charles E. Smith, Jr., MD, Chairman, referred to Reference Committee No. IV.

*Council on Public Policy.* Rex E. Kenyon, MD, Chairman, referred to Reference Committee No. II.

*Council on Socioeconomic Activities.* Arn-

old G. Nelson, MD, Chairman, referred to Reference Committee No. III.

*Poll of the Membership.* Referred to Reference Committee No. III.

#### XV. INTRODUCTION OF RESOLUTIONS:

The Speaker announced that Resolutions Numbers 1 through 11 would be introduced by "Title and Resolve," referred to the appropriate reference committee and acted upon in the Closing Session of the House of Delegates:

*Resolution No. 1* entitled "Tuberculosis Units in General Hospitals," introduced by Board of Trustees, Tulsa County Medical Society, and referred to Reference Committee No. IV.

*Resolution No. 2* entitled "Quality Medical Care," introduced by Kingfisher County Society, and referred to Reference Committee No. II.

*Resolution No. 3* entitled "Medical Quality Care," introduced by Kingfisher and Blaine County Medical Societies, and referred to Reference Committee No. III.

*Resolution No. 4*, entitled "Opposition to PSRO," introduced by Logan County Medical Society, and referred to Reference Committee No. III.

*Resolution No. 5*, entitled "Direct Billing," introduced by Ray V. McIntyre, MD, and referred to Reference Committee No. III.

*Resolution No. 6*, entitled "AMA Code of Ethics," introduced by Ray V. McIntyre, MD, and referred to Reference Committee No. III.

*Resolution No. 7*, entitled "Appreciation of C. A. Hoffman, MD," introduced by S. R. McCampbell, MD, and referred to Reference Committee No. I.

*Resolution No. 8*, entitled "Mid-America Confederation," introduced by Harlan Thomas, MD, and referred to Reference Committee No. I.

*Resolution No. 9*, entitled "TV Documentary," introduced by Arnold G. Nelson, MD, and referred to Reference Committee No. II.

*Resolution No. 10*, entitled "Medicaid," introduced by S. R. McCampbell, MD, and referred to Reference Committee No. III.

*Resolution No. 11*, entitled "Membership Poll," introduced by Logan County Medical Society, and referred to Reference Committee No. III.

#### REFERENCE COMMITTEE MEETINGS:

The Speaker urged all members of the OSMA to attend the Reference Committee hearings, and announced the following meeting areas in the Tulsa Assembly Center: Reference Committee I—Room E, third floor Reference Committee II—Room G, third floor Reference Committee III—Room E, fourth floor

Reference Committee IV—Room F, fourth floor

#### XVI. NECROLOGY REPORT:

The Vice-Speaker of the House of Delegates, S. N. Stone, MD, read the Necrology Report. (A copy of the report is attached and made a part of the minutes.)

#### XVII. ADJOURNMENT OF OPENING SESSION:

The Opening Session of the House of Delegates was adjourned at 9:45 p.m.

### NECROLOGY REPORT

1972-73

Robert L. Alexander, Sr., MD, Okmulgee  
N. F. V. Barkett, MD, Oklahoma City  
Walter J. Baze, MD, Chickasha  
Leo F. Cailey, MD, Oklahoma City  
Andre B. Carney, MD, Tulsa  
Donald G. Clements, MD, Tulsa  
Merl Clift, MD, Blackwell  
John H. Clymer, MD, Oklahoma City  
Wallace R. Coyner, MD, Edmond  
John H. Ennis, MD, Midwest City  
Othel J. Gee, MD, Oklahoma City  
Ray L. Hall, MD, Edmond  
Irvin G. Hamburger, MD, Oklahoma City  
David S. Harris, MD, Drummond  
Walter K. Hartford, MD, Oklahoma City  
Marvin D. Henley, MD, Tulsa  
Margaret G. Hudson, MD, Tulsa  
Joseph A. Johengen, MD, Okmulgee  
Hugh H. Mathews, MD, Enid  
John E. McDonald, MD, Tulsa  
William A. Morton, MD, Tulsa  
Ray L. Murdoch, MD, Oklahoma City  
Clarence F. Neelham, MD, Collinsville, Illinois  
Joseph A. Reiger, MD, Norman  
Robert S. Srigley, MD, Altus  
Orion C. Standifer, MD, Elk City  
George A. Tallant, MD, Frederick  
Bert E. Throne, MD, Tulsa  
Clarence E. Williams, MD, Woodward

### CLOSING SESSION

#### I. CALL TO ORDER:

The Closing Session of the 67th Annual Meeting of the House of Delegates was called to order by the Speaker, Roger J. Reid, MD, at 8:50 a.m., April 28, 1973, in the Tulsa Assembly Center, Tulsa, Oklahoma.

#### II. REPORT OF THE CREDENTIALS COMMITTEE:

Ann K. Kent, MD, Chairman of the Credentials Committee, announced a quorum present.

#### III. REPORTS OF REFERENCE COMMITTEES:

*All reports considered by the House of Delegates are attached and approved and made a part of these minutes.*

### REPORT OF REFERENCE COMMITTEE NO. I

Presented by: Orange M. Welborn, MD, Ada, Chairman.

Mr. Speaker and Members of the House of Delegates, your reference committee gave careful consideration to the items referred to it and makes the following recommendations:

#### Item I. President's Report:

Doctor Stanley R. McCampbell has carried out his duties throughout the year with tireless dedication, he has operated the complex activities of the OSMA with watchful attention to a tenuous budget, and he traveled extensively in an effort to obtain the views of his OSMA colleagues on matters of great importance.

The Reference Committee, on behalf of all OSMA members commends Doctor McCampbell for a job well done, and recommends the adoption of his report to the House of Delegates.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

#### Item II: Report of the Secretary-Treasurer:

Your Reference Committee commends the Secretary-Treasurer, Doctor Haven Mankin, for his attentive service throughout the year and for his detailed report as to the financial condition of the association.

Doctor Mankin wisely observes that a deficit year is expected for 1973-74 due to the effects of inflation against a rather fixed income. His projected deficit of more than \$8,000 during the coming year is recognized by the Reference Committee in the next section of this report.

The Reference Committee recommends the approval of the Report of the Secretary-Treasurer.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

#### Item III: Report of the Board of Trustees (Including the Supplemental Report):

The Board of Trustees has continued to oversee the affairs of the association in an efficient manner.

With respect to the Board's recommendation that OSMA dues be increased from \$100 to \$120 a year, effective January 1, 1974, the committee concurs that this increase is necessary in order to bring income abreast of growing expenses.

The committee also considered the recommendation of the State Legislative Committee to the effect that income be increased with a view toward strengthening staff representation in legislative affairs.

Your committee recommends that OSMA annual dues be increased to \$120 on January 1, 1974. There is no question but that legislative problems are on the increase, just as

PSRO and other matters may require additional staff and additional expense. The OSMA Board of Trustees has the responsibilities of assessing priorities and the employment of necessary staff to carry out all OSMA programs, and any increase in association income should be appropriated by the Board to meet all OSMA goals in the best possible manner.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item IV: Financial Aid to Education Committee:*

Your committee recommends approval of this report.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item V: Resolution No. 7:*

Doctor Carl Hoffman, President of the American Medical Association, has paid a remarkable compliment to the Oklahoma State Medical Association by his attendance throughout the entirety of our annual meeting. Your Reference Committee, on behalf of all Oklahoma physicians, is proud to have our national president in Tulsa for a four-day period.

Moreover, your Reference Committee is grateful for the splendid leadership Doctor Hoffman is providing in the national and international affairs of the American Medical Association.

It is with great pleasure, therefore, that your committee recommends approval of this resolution in small tribute to Doctor Hoffman's contributions to American Medicine.

The committee also wishes to express appreciation to Mrs. Hoffman for attending our meeting and for participating in the activities of the Woman's Auxiliary to the OSMA.

Doctor Hoffman's sacrifices are hers as well, and the committee is proud to have Mrs. Hoffman as the First Lady of the AMA.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

Doctor Stanley R. McCampbell presented Doctor Hoffman with a plaque of appreciation for visiting Oklahoma and with a certificate from Governor Hall of Oklahoma.

Doctor Hoffman stated that he was very pleased to attend the OSMA annual meeting and gave his thanks for the courtesies shown him.

*Item VI: Resolution No. 8*

Your committee recommends approval of this resolution for internal guidance in the development of a more effective role at the national level.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item VII: Report of the Medical Center Liaison Committee:*

Your Reference Committee recommends approval of this report.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item VIII: Report of the Constitution and Bylaws Committee:*

With respect to proposal 3 (page 5) of this report, under "DUTIES" of the Executive Committee, the committee recommends an amendment to the first sentence so that it would read: "The Executive Committee may act on behalf of the association on administrative matters *not involving major policy decisions*, providing such actions are not contrary to established administrative policies of the Board of Trustees or House of Delegates."

With respect to the following paragraph on page 5, your committee believes there is merit to the minority report of the Constitution and Bylaws Committee and suggests that these views be given more consideration in the future. During the next year the Executive and Bylaws Committee should consider a more formal manner in which to select the Executive Committee.

With respect to proposal 5 (page 6) of this report, under "AFFILIATE MEMBERS," section 2.04 (b) should be amended to read: "*Active members of the association who find it necessary to leave the state in order to engage in medical, missionary, education or philanthropic labors, are eligible for this classification of membership for periods of time related to individual circumstances as may be determined by the Board of Trustees.*"

Under section 2.041, "RIGHTS," the word "shall" should be amended to the word "may" in the first sentence since the assessment of dues by the Board of Trustees should be permissive.

While the subject is not mentioned *per se* in the committee report, the present OSMA bylaws require that a physician must have been an active member of the OSMA for a period of two years prior to election by a county medical society as its delegate to the OSMA. This rule contradicts the right of the county medical society to establish its own rules regarding its own representation on the House of Delegates and, in the opinion of the Reference Committee, it should be removed from the OSMA bylaws. It is recommended that the Constitution and Bylaws Committee be assigned the responsibility during the next year to study this matter and prepare the necessary amendments for the 1974 meeting of the House of Delegates.

*Mr. Speaker, I move adoption of this portion of the report as amended. The motion was seconded and it carried.*

*Item IX: Committee on Planning:*

The Committee on Planning reported on the prospect of joining with the Oklahoma City Clinical Society and the Oklahoma Academy of Family Physicians in a triad arrangement to hold a single annual meeting in Oklahoma City each year. Problems associated with OSMA involvement in such a venture on a yearly basis are outlined in the Planning Committee Report.

However, the 1974 OSMA meeting is scheduled for Oklahoma City May 16-18, 1974, so the question of alternating the OSMA meeting between Tulsa and Oklahoma City will not be a factor next year.

Testimony was received to the effect that the OSMA should at least try this arrangement on an experimental basis in 1974, subject to being able to coordinate the interests and activities of all three medical organizations to the benefit of everyone concerned.

It is recommended that the OSMA Committee on Planning and the Annual Meeting Committee meet with representatives of the other two organizations to determine the feasibility of a joint meeting in 1974, and that the OSMA committees report back to the Board of Trustees before August 1, 1973 with a specific plan of implementation "if feasible" for a combined meeting.

*Mr. Speaker, I move the adoption of this portion of the report, to include the Reference Committee recommendation regarding an effort to conduct a combined meeting with the Oklahoma City Clinical Society and the Oklahoma Academy of Family Physicians. The motion was seconded and it carried.*

*Mr. Speaker, I move adoption of this report as a whole. The motion was seconded and it carried.*

Your chairman wishes to thank the members of Reference Committee No. I and Mr. Don Blair, for their able assistance in preparing this report.

**REPORT OF REFERENCE COMMITTEE NO. II**

Presented by: Jack Richardson, MD, Tulsa, Chairman

Doctor Richardson stated his appreciation to Doctor McCampbell during the past year for his services in Oklahoma and national areas of leadership.

Mr. Speaker and Members of the House of Delegates, your reference committee gave careful consideration to the items referred to it and makes the following report:

*Item I: Report of the Council on Public Policy:*

Mr. Speaker, your committee considered this council's report by section.

*Section 1: Report of the Medical Heritage Committee:*

*Mr. Speaker, I move adoption of this por-*

*tion of the report. The motion was seconded and it carried.*

*Section 2: Report of the Public Relations Committee:*

Mr. Speaker, your committee would like to bring to the attention of the House of Delegates a portion of this report that permits the committee to produce a slide presentation depicting the various functions of the association. We would especially like to commend the committee for this idea and think it should be implemented as soon as possible.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Section 3 Report of the State Legislative Committee:*

Mr. Speaker, your reference committee spent a considerable amount of time discussing this report. There are sections of the report that deserve and require special comment.

In regard to Senate Bill 114, your reference committee would recommend alternative No. 1 be amended as follows, "Nothing be changed and individual hospital and medical staffs continue to handle their own affairs."

Your committee discussed this proposed bill in great detail and appreciates the concern of Senator Stansberry and considers his basic philosophy to be sound. However, there is apparently no existing statutory board that could appropriately handle the problems that this legislation was designed to solve and the reference committee did not feel that there is sufficient need for such a board to be created. Your committee would recommend that if sometime in the future sufficient problems develop between hospital staffs and hospital boards of control then such legislation be considered.

In regard to House Bill 1022, your reference committee feels that this is extremely bad legislation which is not in the best interest of the state of Oklahoma. Since the bill has passed both the House and the Senate, it will probably become law, however, we would urge the legislative committee and all the physicians of this state to make attempts to have this law repealed or significantly changed.

*Doctor Wagnon made a motion that during this session, the House of Delegates of the State Medical Association go on record as a body as being opposed to HB 1022. The motion was seconded and carried unanimously.*

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

In regard to House Bill 1049, your reference committee has received reliable information that sufficient funds will be allocated to start the two-year clinical school as a branch of the College of Medicine in Tulsa this year.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

In regard to Senate Bill 138 your committee notes that this bill has been changed from contributory negligence to comparative negligence which may have implications on medical practice and a physician's relationship with his patient. In view of this possibility, your reference committee recommends that a special article on this law be published in *The Journal* as soon as possible.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

In regard to recommendation No. 1, your reference committee concurs in the legislative committee's recommendation that additional financial support be provided for legislative activities. However, the subject of additional income for the association is contained in another report previously submitted to the House (Reference Committee No. 1). Your committee feels that the priorities of the association are subject to change and therefore the earmarking of funds may not be wise. In view of the fact that recommendation No. 3 of this committee's report asks for a joint meeting of the Board of Trustees, it would be your reference committee's suggestion that additional funding be provided at the discretion of the Board of Trustees.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

Your reference committee would broaden recommendation No. 2 to read as follow: "It is recommended that the activities of the committee be continued and that other medical organizations such as the Academy of Family Practice and local county medical societies be asked to assist the association in its legislative efforts."

*Doctor Martin Andrews made a recommendation that the Academy of Family Practice be changed to the correct title of the Oklahoma Academy of Family Physicians. The motion was seconded and it carried.*

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

In regard to recommendation No. 3, your reference committee would concur but would suggest that representatives of OMPAC be invited to attend this session.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

Your reference committee heard considerable testimony regarding the association's legislative activities, we would like to commend the committee for its outstanding efforts, however, the preponderance of opinion expressed at the committee hearings is the physician at the local level has the great-

est influence on his legislator. Your reference committee recommends that information generated by the committee be distributed to a broader segment of the association's membership. And that physicians across the state become more involved in local politics by supporting candidates and expressing their views. It is imperative that our members become more personally involved in order that we can collectively be successful.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Mr. Speaker, I move the adoption of the Legislative Committee Report as amended. The motion was seconded and it carried.*

*Mr. Speaker, I move the adoption of the Legislative Committee Report as amended. The motion was seconded and it carried.*

*Item II: Report of the Council on Professional Education:*

Mr. Speaker, your reference committee recommends the adoption of the Council on Professional Education Report, with an added recommendation that "consideration be given to requiring attendance at a state medical association meeting once every five years as a condition for membership in the association."

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item III. Resolution No. 9:*

Your reference committee recommends that this resolution be approved.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item IV: Resolution No. 2:*

Your reference committee recommends that this resolution be approved.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Mr. Speaker, I move the adoption of this report as a whole. The motion was seconded and it carried.*

## REPORT OF REFERENCE COMMITTEE NO. III

Presented by: John A. McIntyre, MD,  
Enid, Chairman

Mr. Speaker and Members of the House of Delegates, your reference committee gave careful consideration to the items referred to it and makes the following recommendations:

*Item I: Report of the Council on Professional and Intervocational Relations:*

The committee recommends the approval of this report in its entirety.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item II: Report of the Council on Socio-Economic Activities:*

The committee recommends the approval of this report in its entirety.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item III: Professional Standards Review Organization Poll:*

After lengthy debate in the reference committee and then careful deliberation in the Executive Session, your committee recommends that the explanation of the PSRO situation be adopted as written, changing only the postmark date to correspond to the following change:

Your committee recommends that the letter of transmittal signed by the Speaker of the House of Delegates, that will accompany the ballot be accepted with the following P.S. added at the bottom of the page in all capitals . . . "The enclosed ballot card must be returned by———.", and here would be inserted a date to be selected by the association's officers and staff which would expedite the return and tabulation of the ballots.

Regarding the ballot itself, your committee recommends the following wording: "The Oklahoma Foundation for Peer Review should be activated to undertake preliminary investigation of the PSRO and the forthcoming regulations, with the final decision to apply for PSRO involvement remaining vested with the OSMA House of Delegates." This would be followed by a place to vote "yes" and "no" and then a signature line.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item IV: Resolution No. 3:*

In view of the committee's recommendation regarding the PSRO poll, the committee recommends that Resolution No. 3 not be adopted.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item V: Resolution No. 4*

The committee recommends that this resolution be amended to insert the words "portion of P.L. 92-603" immediately following each mention of "PSRO." It further recommends that the phrase "will encourage non-participation on the part of our members" be stricken from the resolution so that it now reads "NOW THEREFORE BE IT RESOLVED that since the PSRO portion of P.L. 92-603 is incompatible with the goals and ideals of OSMA and AMA code of ethics, as well as the pledge to his patients of every practicing physician, we therefore determine that the OSMA will go on record as being

opposed to the PSRO portion of P.L. 92-603 and will transmit a properly recorded resolution to this effect to the AMA House of Delegates for their consideration."

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item VI: Resolution No. 5:*

Your committee recommends that the final resolve of this resolution be amended to read as follows, "NOW, THEREFORE BE IT RESOLVED that the OSMA reaffirm its opposition to its members accepting assignment from third parties and that the OSMA again notify its membership of its opposition to its members participating in this interference in the doctor-patient relationship."

*Mr. Speaker, I move the adoption of this portion of the report as amended. The motion was seconded and it carried.*

*Item VII: Resolution No. 6:*

Your committee is sympathetic to the concerns expressed by the author of this resolution and accepts it in the spirit in which it was written. However, we recommend that it not be adopted.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item VIII: Resolution No. 10:*

Your committee recommends that the fourth WHEREAS in this resolution be stricken and replaced with the following language, "WHEREAS, with the increasing number of physicians who are not accepting assignment on Medicaid recipients it is feared this may result in the Department of Institutions, Social and Rehabilitative Services no longer being in compliance with federal law requiring the furnishing of these services to all recipients throughout the state." We also recommend that Mr. Lloyd Rader's name be stricken from the resolve and it be replaced by "the Welfare Commission."

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Item IX: Resolution No. 11:*

Your committee feels that its earlier recommendation regarding the opinion poll eliminates the necessity of this resolution and therefore recommends it not be adopted.

*Mr. Speaker, I move the adoption of this portion of the report. The motion was seconded and it carried.*

*Mr. Speaker, I move the adoption of this report as a whole. The motion was seconded and it carried.*

Mr. Speaker, I would like to thank Reference Committee No. III and Mr. Ed Kelsay.  
**REPORT OF REFERENCE COMMITTEE NO. IV**

Presented by: Kent Braden, MD, Oklahoma City, Chairman

Mr. Speaker and Members of the House of

Delegates, your reference committee gave careful consideration to the items referred to it and makes the following report:

*Item I: Council on Public Health:*

Mr. Speaker, your committee considered this report by section.

*Section III: Immunization Committee*

Mr. Speaker, your reference committee would like to express special consideration to WKY's Television News Department for its documentary on polio. Your reference committee recommends that Jack Ogle, Bob Dotson, Pam Henry, and Dick Nelson, all of WKY-TV, be presented certificates of appreciation from the Oklahoma State Medical Association for their assistance in the recent polio documentary.

*Mr. Speaker, I move adoption of this portion of the report. The motion was seconded and it carried.*

*Section IV: Laboratory Quality Committee:*

Mr. Speaker, your committee recommends approval of the Report of the Laboratory Quality Committee with this amendment:

Under Section IV, third paragraph, the last sentence should read: "Our committee receives an anonymous copy which we use to make a group report for all participants."

*Mr. Speaker, I move adoption of this portion of the report. The motion was seconded and it carried.*

*Item II: Council on Insurance:*

The Reference Committee recommends approval of this report.

*Mr. Speaker, I move adoption of this portion of the report. The motion was seconded and it carried.*

*Item III: Resolution No. I:*

Mr. Speaker, your committee considered the resolution No. I and makes the following recommendations:

The Title be changed to read, "Tuberculosis Units in Participating General Hospitals."

The word "most" be stricken from the first sentence of the first resolve and the sentence read as follows: "The Oklahoma State Medical Association supports the concept that the patient with tuberculosis, needing hospitalization, can be effectively and efficiently treated in general hospitals which are willing to assume the necessary responsibilities and provide the necessary services required by such patients . . ."

The second resolved be changed to read as follows: "That copies of this resolution be sent to members of the Oklahoma State Legislature with the request that appropriate legislative efforts be made to assure that state funds for the hospital care of the indigent patient with TB may be made available for care of such patients in general hospitals meeting the American Hospital Association recommendations for care of patients with Pulmonary Tuberculosis . . ."

The last resolve be changed to read as follows: "That copies of this resolution be sent to major third-party insurance carriers urging them to pay for such care of tuberculosis patients in a general hospital to the extent such benefits are provided in their other contracts providing general hospital benefits."

*Mr. Speaker, I move adoption of this portion of the report. The motion was seconded and it carried.*

*Mr. Speaker, I move adoption of this report as a whole. The motion was seconded and it carried.*

**IV. NEW BUSINESS**

Doctor Reid gave special thanks to the OSMA staff members for their assistance in preparing the annual meeting.

**V. ADJOURNMENT**

The 67th closing session of the House of Delegates adjourned at 9:50 a.m.

Recorded by Betty Mahoney

(Reports continued on the following page.)

**1974**

**OSMA ANNUAL MEETING**

**In Cooperation With**

**Oklahoma Academy of Family Physicians**

**Oklahoma City Clinical Society**

**May 12-15, 1974**

**Myrad and Skirvin Plaza Convention Center**

**Oklahoma City**

# It's about time somebody told the true story of the American Doctor.

You'd agree 100% on that. There have been too many of the other kind of story.

You know that the vast majority of American doctors are honest, hardworking, skilled and dedicated human beings who have the interests of their patients at heart.

That's exactly what the AMA is trying to make the public aware of.

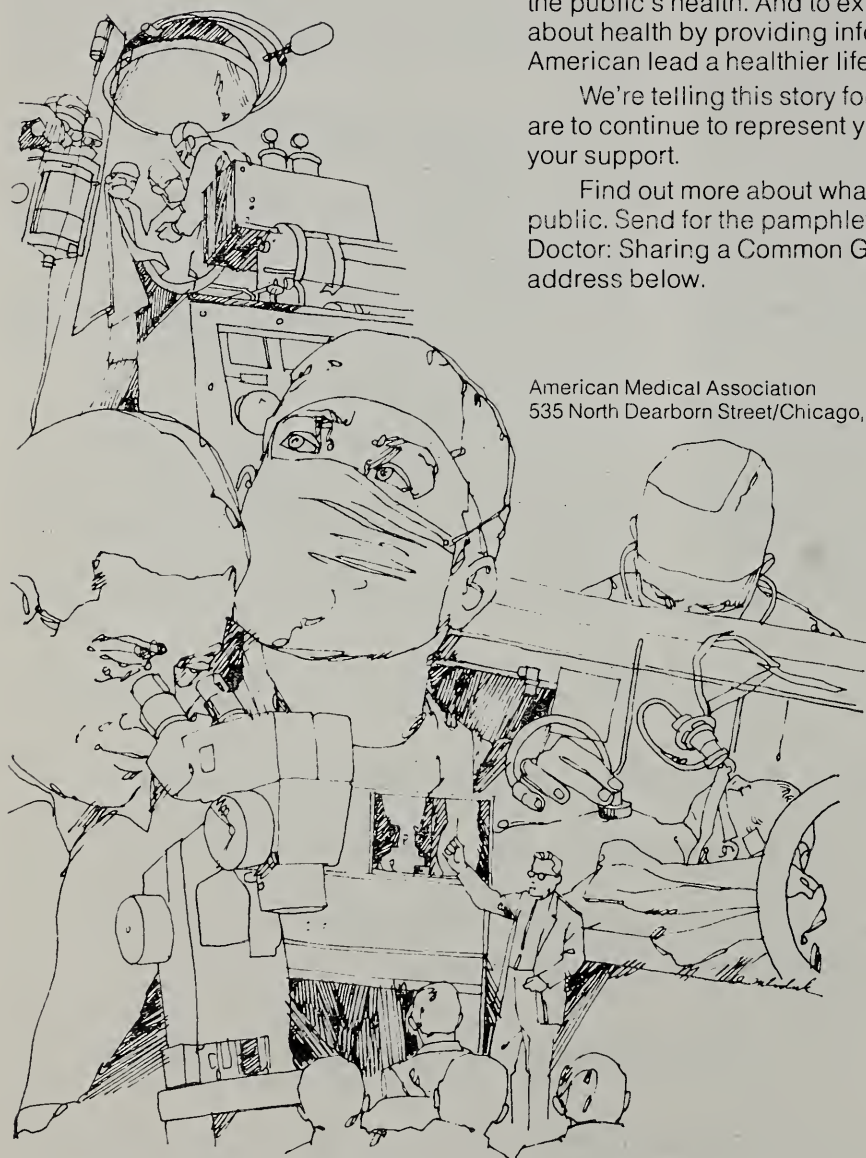
One of the many ways the AMA is doing it is through its special communications program.

Perhaps you've seen pages in newspapers and national magazines signed "America's Doctors of Medicine." They're part of this program. It tells the true story of what it takes to become a doctor. The ways American medicine has improved the public's health. And to express the profession's concern about health by providing information which will help every American lead a healthier life.

We're telling this story for you, the American doctor. If we are to continue to represent you effectively, we need your support.

Find out more about what the AMA does for you and the public. Send for the pamphlet, "The AMA and the American Doctor: Sharing a Common Goal." Write: Dept. DW, at the address below.

American Medical Association  
535 North Dearborn Street/Chicago, Illinois 60610



Report of the  
PRESIDENT  
(APPROVED)  
April 26, 1973

Mr. Speaker,

Fellow Members of the House of Delegates:

Being President of the Oklahoma State Medical Association has been one of the most interesting and one of the most challenging years of my life. I owe you, its leaders, a great debt of gratitude for allowing me to serve in this position. I am indebted to OSMA for my ulcer, my narrowing coronary arteries, my increasing white-sidewall hair coloration, and my declining ability as a tennis player. I feel like the chimpanzee who was making love to a skunk who said, "I've enjoyed about all this I can stand."

I have mixed emotions about the end of my term as President. A sense of relief is mixed with a feeling that I am going to miss the intense activity associated with the Presidency when combined with a busy practice. I would hope that every member of this society would aspire to be President, the good features of which far out-weigh the bad. In the good column, I would place high on the list the multiple new friendships with doctors around the state, the occasional ability to help a fellow physician in distress, the many interesting problems involving medicine that arise almost daily, and the satisfaction of solving some of them. In the bad column, I would place the numerous sleepless nights of anxiety over the tangled affairs of medicine in our country, the occasional feeling of being over whelmed, and most important, leaving behind problems of medicine that are insoluble or beyond my abilities to solve. The presidency is a challenge intellectually, socially, economically, emotionally, and physically.

I would like to make a few comments on some of the highlights of the year's activities. When I became President of OSMA, the issue of the annual meeting changes appeared rather suddenly because of the fact that the Oklahoma City Clinical Society and the Oklahoma Academy of Family Practice decided to set a joint meeting in Oklahoma City twenty-five days prior to our meeting. We negotiated unsuccessfully for a change in their date. This scheduling would conceivably decrease our attendance and decrease the likelihood of exhibitors working with us. This issue for the coming year is still unsettled, but certainly should be settled at this meeting.

In June at the AMA meeting in San Francisco, the duties included caucuses of the Oklahoma delegation plus organizing of our delegates to attend reference committees to speak either for or against resolutions that have been presented by OSMA. In addition at that meeting in San Francisco, the initial

contacts were made for the formation of the Mid-America Coalition. This amounts to an association of states in Mid-America so that we can offset the political power of each coastal area.

All summer I was very busy in enhancing the political power of OMPAC, Oklahoma Medical Political Action Committee, by an attempt to increase its membership. This was successful in that we have more members in OMPAC than ever before.

Since this was a political year, we spent much of the Fall in the political arena. We rated members in the State Legislature and the Senate depending on how they voted on bills important to the State Medical Association. Then we backed friends and opposed foes with OMPAC money and I personally campaigned for certain candidates. We backed 57 candidates and lost on 11. Gentlemen, that is 78% winners, and I promise you that if you do that well at the track, you will be a millionaire.

During the Summer and Fall we filled speaking engagements to every County Medical Society that responded to an offer of a visit by me and usually one staff member. Bob Hogue of Guthrie, the Vice-President, made some of these trips where we had an over-lap. This was a fine experience since I met a lot of very nice people about the state and explained what we were trying to do as a state organization and why.

At the Cincinnati meeting of the AMA we made further inroads in the formation of the Mid-America Coalition. Also, we would caucus and organize speakers at reference committees to favor and oppose certain OSMA resolutions. We did rather well incidentally on these resolutions. Behind the scenes attempts were made to influence AMA policy about PSRO. David Bickham and I stole a committee report several hours before it was available to organize our position favoring OSMA resolutions.

The big issue of the whole year has been PSRO. Every physician in the state was invited to attend a regional meeting on PSRO. Some have asked why the urgency about PSRO. I would say that after contemplating the law I would have felt remiss in my leadership responsibilities had I not tried to inform each member of the State Medical Association about what he was getting into. Problems of this law are going to transcend the next several presidential administrations of the OSMA. The easy thing for me to do perhaps sixty days before I was to go out of office was to punt the problem along to the next administration. The promise of a referendum, I think, enhanced interest in learning about PSRO. The other sense of urgency is related to the influence on other states' actions. I might say that the President's page

of the OSMA Journal in which I set out my position of non-participation had a considerable play around the country. The American Association of Physicians and Surgeons sent out 35,000 copies, Council of Medical Staffs sent out 30,000 copies, a Texas group sent it to their delegation, Arizona Medicine is publishing it shortly. In Georgia, I am afraid, I started a revolution. The doctors in Atlanta want PSRO and the doctors around the state do not. So Georgia has a revolution, but Georgia has survived revolutions before and I am sure they will this one. The General Practice group in Ohio has sent it to 2,300 family practitioners in Ohio. I have groups also working in behalf of non-participation in Tennessee, Alabama, Louisiana, California, Florida, New York, and Pennsylvania. I have been invited to speak about PSRO in probably 8 or 10 different locations; the only one I accepted being an upcoming one in New York. The others I declined because we were so busy going around the state talking to our own doctors. It is unlikely that we will know in 1984 what the law is because of new regulations as they come along, so I see no reason to wait for the regulations. This body will now have an opportunity to debate the issue of PSRO. It is my hope that we will have our referendum.

In reference to finance, I would like to say that we have kept a firm watch over our state association's expenses by cutting corners where possible without reducing effectiveness of the program. We were able to hold the line especially in view of the continuously rising prices for everything we buy like paper, pencils, typewriters, etc. I had the unique experience of having looked after the treasury now since 1969, that being the last year we had a dues increase. I am also pleased to announce that the building loan, originally \$50,000 was paid down to about \$41,000. Last summer we paid \$35,000 to principal thus leaving about \$6,000 left to pay. This saved the association some \$18,347 in interest if the loan had been allowed to run its usual course. The treasurer's report will carry further details.

The Health Sciences Center problem has been one of the year's major problems. We have worked with the legislature, the senate, and the governor to influence in a positive way actions to preserve and improve medical education in Oklahoma. A few months ago, the situation looked very grim. The whole outlook at present seems to be improved but at this point still incomplete. As it progresses we will have additional opportunities to cash in on our improved political influence and power. During the course of these dramatic events, the Governor asked

me to appoint an Advisory Committee of state doctors on medical education in Oklahoma. In addition, Chancellor Dunlap asked me for a Liaison Committee to the Regents for Higher Education. We think both of these groups will bear fruit.

In reference to the future, I view the road ahead as even rockier than before. The need for a close knit Oklahoma State Medical Association has never been greater. The need for firm consistent leadership is even more important. The necessity of our members' being informed of our actions and the reasons for them is even greater. The members having been informed will be more likely to stick together in the battles of the future.

I would cite some of the dangers from government. I feel, of course, that we should pull out all the stops to avoid national health insurance. Our politicians are either for us or against us. A massive campaign of our encouraging our patients to write letters to their congressmen should be undertaken perhaps forthwith. PSRO is a real danger in that it is a divisive issue and could undermine the physician's great enthusiasm and pride in his own work.

Secondly, I would cite the dangers from the hospitals. I might point out that the American Hospital Association was very much in favor of Medicare when the AMA opposed it. The American Hospital Association now has a quality assurance program or a PSRO type thing that they want to administer themselves. Curiously I discovered this year that the influence of a hospital administrator over his doctors may be greater than that of the OSMA. This is due to proximity and to greater access in terms of discussing with him the problems at hand. During the year, the American Hospital Association published a list of patients' rights. This was a rehash of all the legal rights that patients have at the present time. For example, patients must be informed if they are going to be a part of any experimental project. This Patients' Rights document was handed to the press in a manner that was calculated to give medicine a black eye. Mostly in reference to the hospitals, our problems are over lapping. I am sympathetic with hospitals and sympathetic with hospitals' problems. Without hospitals, doctors would be in a hell of a fix. I must say that at the moment, organized medicine and the Hospital Association seem to be working at cross purposes. Perhaps physicians should convert their own hospital administration in the hope that he might influence his own national body.

In reference to state political problems, I might add that we could win the battles on a national level and lose them on a state level. I don't mean National Health Insur-

ance, but other restrictive laws that come up in the state legislature with great regularity could have a disastrous effect on medicine. So, we must continue a close surveillance and further strengthen OMPAC to work nationally and locally as well.

During the last few years, the new consciousness in our country has shot down many of our idols. Motherhood, which used to be a symbol of all things good, has been shot down because of the supposed excessive population growth. The Hippocratic oath was shot down by the Supreme Court when it made the famous abortion decision. Now PSRO again shoots down one of the basic tenets of physicians which is that we have our own PSRO built into our brains. So the administration ahead has a very busy and interesting job to do.

I would like to say again that I owe you my gratitude for allowing me to serve as President of the State Medical Association. Physicians have captured my respect for a job well done, for honesty, hard work, and integrity of the highest order. I cannot think of any higher accolade than being allowed for one year to be the principal spokesman for such a group.

Thank you, gentlemen.

#### Report of the BOARD OF TRUSTEES (APPROVED)

This report summarizes actions taken by the Board of Trustees since the last annual meeting. Actions taken at this annual meeting will be covered in the accompanying Supplemental Report.

Reportable actions taken at meetings held October 29th and February 4th, and actions taken by mail ballot and conference call, are summarized below:

1. The Board approved an annual audit of the association's accounts for the fiscal year ending May 31, 1972 which revealed an operating surplus of \$15,869. The budgeted surplus estimated for the current fiscal year was \$5,616. Copies of the official audit were mailed to the entire House of Delegates.

2. OSMA President Doctor Stanley R. McCampbell reported that he had paid \$35,000 toward the building expansion loan. (At present, there is a balance of \$6,286.22.)

3. The Board considered 8 resolutions drafted by the Committee on Planning for presentation to the AMA House of Delegates, 5 of which were approved for transmittal to the AMA. (The AMA adopted one resolution without change, referred one to the AMA Board of Trustees, adopted two in amended form, and rejected one.)

4. The Board of Trustees considered the action of the plan of the Oklahoma City Clin-

ical Society and the Oklahoma Academy of Family Physicians to consolidate their meetings in 1973, as well as the corollary question of whether or not the OSMA should join this consolidation effort. A survey was taken in Tulsa to test the attitudes of Tulsa physicians toward holding the OSMA meeting in Oklahoma City each year . . . of 260 replies to the question, 100 Tulsa doctors approved the Oklahoma City meeting site, 96 were opposed and 61 had no opinion. Thus, it appeared clear that a significant percentage of Tulsa physicians want the OSMA meeting in their city on alternating years. The Board of Trustees adopted a statement that the OSMA should continue to alternate its meeting between Oklahoma City and Tulsa . . . that every effort should be made each year to develop an outstanding scientific program . . . that all specialty societies should be invited to meet jointly with the OSMA . . . that more study should be given to future plans (1974 and beyond) . . . that efforts should be made to consolidate with the Oklahoma Academy of Family Physicians (alternating between Oklahoma City and Tulsa) . . . that if such cannot be accomplished, the OAFP should be asked to significantly separate its meeting dates from those of the OSMA . . . and that thought be given to find means to finance the annual meeting without exhibit income.

A problem occurred with respect to the 1973 OSMA annual meeting. It is co-sponsored by the American College of Obstetricians and Gynecologists and an excellent program on all aspects of pregnancy has been developed. However, a federal grant through the American College is involved, and it was learned on March 30th that some doctors of osteopathy had been invited and plans were underway to invite all DO's in the state. A compromise was worked out whereby DO's previously invited would be welcomed at the meeting but that no statewide promotion could be carried out without more formal consideration by the Board of Trustees and the House of Delegates. The Board of Trustees supported this compromise by a telephone conference call on April 3rd and looks forward to an excellent scientific program arranged by the American College of OB-GYN and other specialty groups.

5. Resolution No. 12 at the 1971 annual meeting called for the annual solicitation of \$10 contributions from the membership in order to provide a fund to assist needy medical students at OU. This year, more than \$4,400 has been contributed by OSMA members, which, together with matching funds, will create a loan program of \$44,000.

6. The Board approved a new group insurance program for OSMA members and their employees . . . a major medical-hospital plan underwritten by the Washington Na-

tional Insurance Company (see Report of the Council on Insurance).

Oklahoma Blue Cross-Blue Shield was an unsuccessful bidder on this account, but then saw fit to launch a program anyway in direct competition with the approved OSMA plan. The Board of Trustees wrote a letter to all state physicians advising them that the association endorsed the Washington National plan and not Oklahoma BC-BS.

7. Continuing its successful relationship with "INTRAV," a St. Louis travel agency specializing in medical groups, the Board of Trustees approved the July 26, 1973 departure of a "Scandinavian Adventure." The tour, like other OSMA-INTRAV tours to Tokyo, Hong Kong and the Mediterranean, is sold out.

8. Responding to its commitment (in the light of inflation) to the Woman's Auxiliary to the OSMA, the Board increased from \$200 to \$500 its contribution to help fund the auxiliary's annual convention.

9. The Board of Trustees considered Public Law 92-603 which, by January 1, 1974, will establish a federal peer review system ("PSRO" — or Professional Standards Review Organizations) on a nationwide basis. At the suggestion of OSMA President McCampbell, the Board instructed the association officers and staff to carry out a statewide educational program to the OSMA membership, to be followed by a vote to help determine a course of action. Regional meetings were immediately organized throughout Oklahoma, a summary of the federal law and a description of the Oklahoma Foundation for Peer Review was printed, and speaker teams were formed. The meetings were to be concluded in March and it was announced that a ballot would be mailed to the membership on April 1st. More than 1,200 OSMA members attended the regional meetings. On March 9th, near the conclusion of the regional meetings, the Board of Directors of the Tulsa County Medical Society requested that the membership poll be delayed until after the OSMA annual meeting. The OSMA Board of Trustees was contacted by mail and voted 10 to 6 to delay the poll. In addition, the Board of Trustees activated the Board of Directors as a Committee of the OSMA to study the PSRO law and its regulations. The officers of the foundation are: Hillard E. Denyer, MD, Bartlesville, President; Scott Hendren, MD, Oklahoma City, Vice-Chairman; and C. S. Lewis, Jr., Tulsa, Secretary-Treasurer.

10. In the face of President Nixon's plan to discontinue funding of Regional Medical Programs, the Board of Trustees adopted a resolution supporting the continued funding of the Oklahoma Regional Medical Program.

However, shortly thereafter, our ORMP employee was quoted in the Oklahoma Journal as being intent on changing the health care delivery system to assure that medical care is a right and not a privilege. By a mail ballot, the Board of Trustees rescinded the resolution.

11. The Board scheduled the 1974 annual meeting of the OSMA in the Skirvin Hotel Convention Center, Oklahoma City, for May 16-18, 1974.

12. The Board appointed the Board of Directors of the Oklahoma Medical Political Action Committee for the 1973-74 organizational year.

13. Doctors Walter E. Brown, Tulsa; Scott Hendren, Oklahoma City; and Floyd Miller, Tulsa, were named by the Board to be advisors to the Woman's Auxiliary to the OSMA for the 1973-74 organizational year.

14. The Board approved replacing a 16-year-old boiler with two gas-fired furnaces in the OSMA headquarters building.

15. The Board endorsed the Hypertension-Hyperlipidemia Drive of the Oklahoma Heart Association.

16. Life Memberships in the OSMA were approved for E. O. Martin, MD, Cushing; Marvin B. Glismann, MD, Oklahoma City; David T. Hunt, MD, Nocoma Park; Leonard C. Williams, MD, Oklahoma City; Wallace L. Dixon, MD, Cement; Gilbert E. Haslam, MD, Anadarko; John B. Miles, MD, Anadarko; F. G. Dorwart, MD, Muskogee; Berget H. Blocksom, MD, Tulsa; Harry Wilkins, MD, Oklahoma City. (Other recommendations may be included in the Supplemental Report).

17. A 50-Year Pin was awarded to Marvin B. Glismann, MD, Oklahoma City.

18. The Board exempted three physicians from the payment of dues for 1972, based on petitions from county medical societies.

19. An Affiliate Membership was approved for William J. Osher, MD, Tulsa.

20. The Board of Trustees reports the following breakdown of membership:

Active Members	2,018
Active Dues Exempt Members	23
Applications Pending	75
Life Members	151
Affiliate Members	14
Junior Members	106
Total	2,387

#### RECOMMENDATION:

It is requested that the House of Delegates affirm the actions taken by the Board of Trustees during the last year.

Supplemental Report  
BOARD OF TRUSTEES  
April 26, 1973  
(APPROVED)

At the annual meeting of the Board of

OKLAHOMA STATE MEDICAL ASSOCIATION

Trustees held at 9:00 a.m. on April 26th, the following actions were taken:

I. M. Joe Crosthwait, MD was re-elected to a one-year term as Chairman of the Board of Trustees, and Jerold D. Kethley, MD was re-elected to a one-year term as Vice-Chairman.

II. The Board approved the nominations of the president-elect, Doctor C. Riley Strong, and appointed the following physicians to the Executive Committee (by elective position): president-elect, immediate past president, vice-president, delegates to the AMA, speaker and vice-speaker of the House of Delegates, chairman of the Board, and secretary-treasurer.

III. To fill a vacancy on the Oklahoma State Board of Medical Examiners, the Board nominated three physicians, in accordance with the state law, one of whom will be appointed by the Governor to a seven-year term: Charles J. Roberts, MD, Enid (Incumbent); Robert J. Hogue, Jr., MD, Guthrie; Ed L. Calhoon, MD, Beaver.

IV. The Board appointed Mark R. Johnson, MD, Oklahoma City, to a new three-year term as Editor-In-Chief of the OSMA Journal.

V. Guy Swadley, Jr., Eufaula, was appointed by the Board of Trustees to a full five-year term on the Board of Directors of the Oklahoma Foundation for Community Medical Care.

VI. The Oklahoma Foundation for Peer Review was incorporated in January, 1972, but has never been activated. The original directors of the foundation named by the Board of Trustees in 1972 were appointed for specific staggered tenures of from one to three years each. Because the foundation has not been activated, the Board of Trustees of the OSMA elected to freeze the original appointments until such time as the foundation may begin to function.

VII. The Board of Trustees elected A. L. Johnson, MD, El Reno, as the 1973 recipient of the A. H. Robins Physician Award for Community Service.

VIII. The Board authorized the continuation of its annual contribution of \$250 to the Governor's Committee on Employment of the Handicapped. This contribution is used to defray the travel expenses to Washington, D.C. for the teacher of the 1st-place essayist in the contest on employment of the handicapped.

IX. The Board voted to support two foreign tours in 1974 as developed by INTRAV, a St. Louis based travel agency. In March, 1974, INTRAV will conduct a two-week tour to New Zealand, Australia and Tahiti at a cost of \$998 per individual; in the summer of 1974 INTRAV will conduct a two-week tour to Switzerland, Austria and Germany at a cost of \$868 per individual.

X. The Board voted to continue its annual contribution to the Oklahoma Council on Economic Education, an organization whose mission is to enhance the level of education in basic economics throughout Oklahoma's secondary school system.

XI. The Board voted to continue its participation in the Oklahoma Council for Health Careers, an organization sponsored by health groups for the purpose of increasing the supply and distribution of health and health-related personnel throughout Oklahoma.

XII. The Board endorsed the AMA Medicare Bill now pending before Congress, as the most acceptable alternative in the issue of national health insurance. The purpose of this endorsement is to strengthen the hand of the American Medical Association in dealing with this threatening problem.

XIII. The Board endorsed guidelines of the Oklahoma Hospital Association with respect to the function and training of RN's and LPN's who are employed in emergency coronary care units.

XIV. Four additional members of the OSMA were approved for dues-exemption in 1973 for reasons of ill health and/or financial hardship.

XV. 50 Year Club pins were awarded to Earl M. Woodson, MD, Poteau and Minard F. Jacobs, MD, Oklahoma City.

XVI. Life Membership applications were approved for: John J. Batchelor, MD, Oklahoma City; F. R. Hassler, MD, Oklahoma City; F. Redding Hood, MD, Oklahoma City; Alvin R. Jackson, MD, Oklahoma City; William R. Moore, MD, Oklahoma City; Delbert G. Smith, MD, Oklahoma City; Minard F. Jacobs, MD, Oklahoma City; Hugh Jones, MD, Oklahoma City; T. W. Pratt, MD, Tulsa (filed by East Central Oklahoma Medical Society); William Loy, MD, Pawhuska; John A. Bealor, MD, Norman; and George L. Kaiser, MD, Muskogee.

XVII. Affiliate Membership applications on behalf of C. S. Cunningham, MD, Poteau, and Robert J. Hogue, Jr., MD, Guthrie, were approved.

XVIII. The Board of Trustees reviewed the Report of the Secretary-Treasurer which presented an estimate of the financial condition of the OSMA as of May 31, 1973, as well as a projected budget for the forthcoming fiscal year. The Board took note of the effects of inflation on current association funding, as well as the need for expanded activities to meet growing demands, and herewith recommends to the House of Delegates that the dues for 1974 be increased from \$100 to \$120 per year.

XIX. The Board received and considered a proposal regarding the methodology of a poll of the entire OSMA membership on the subject of Professional Standards Review Organ-

izations (Section 249F of Public Law 92-603). This matter is herewith referred to the House of Delegates for further consideration (it is presented separately from this report and will be referred to Reference Committee No. III at the opening session of the House of Delegates.)

Report of the  
SECRETARY-TREASURER  
(APPROVED)

*Financial Statement*

The association's fiscal year ends on May 31st, at which time a complete audit of all accounts will be prepared. In order to provide the Delegates with an indication of the financial status of the association, the following estimates of income and expense (excluding the annual meeting) are presented.

**INCOME**

Membership Dues	\$200,000	
Interest Income	4,300	
Building Lease Income	4,200	
Journal	28,500	
Directory	4,300	
AMA Commissions	2,000	
Total Income		\$243,300

**EXPENSE**

Fixed Expenses	\$147,000	
Depreciation	4,800	
Councils and Committees		
Public Policy	3,450	
Insurance		
Professional		
Education	2,100	
Socio-Economic		
Public Health	125	
Prof. & Intervocational Relations		
	5,675	
Student AMA	300	
Scholarship and		
Loan Fund	11,000	
In State Travel	5,200	
Out State Travel	12,700	
Mortgage Payments	5,485	
OSMA Newsletter	1,200	
Journal	39,600	
Directory	4,720	
Total Expense		\$237,680
Surplus		\$5,620

Comparable figures for last year are: Income \$239,330; Expense \$218,311 (the annual meeting is excluded from these figures . . . there was a deficit of \$5,150, leaving an overall surplus of \$15,869).

At the beginning of the fiscal year, the OSMA budgeted for an estimated surplus of \$5,616, so the foregoing estimate of actual

operations (\$5,620) is surprisingly close to our estimate one year ago. However, at the Board of Trustees meeting on April 26, 1973, the question of paying \$3,600 annual dues to the Oklahoma Council for Health Careers will be considered, and this decision could materially alter the anticipated surplus.

National Journal advertising has been a problem for five or six years. In the preceding fiscal year (1971-72), the trend was reversed and national ad sales rose to 534 pages. During the current fiscal year, there were 504 pages . . . a decline, but still acceptable. At the last annual meeting it was reported that our Journal printer would raise rates about \$6,000 a year due to the fact that rates had not been increased for several years. This has occurred as the Delegates were forewarned, but as indicated in the preceding financial statement, this cost increase has been offset through economies to the extent that we are very close to our budgeted surplus for the year. There will be no increase in printing costs during the next fiscal year.

The annual meeting is not included in the estimated financial statement because complete income and expense figures are not known at this time. However, exhibit sales are up from last year and we anticipate at least a self-sustaining meeting and perhaps a small surplus.

The current annual rate of inflation, according to the U.S. Department of Commerce, is about 6%. However, it is necessary to adjust this overall estimate in the light of the nature of the business concerned, and the annual inflationary rate for the OSMA would likely be much higher (for example, general OSMA operating expenses are up about 8-10% over the last year despite a concerted effort to economize).

If estimated expenses for the current fiscal year (\$237,680) are subjected to an inflationary increase of only 6% to accommodate the next fiscal year, and if income remains stable during the same period, then the OSMA cannot operate at present levels without a deficit during the next year.

The current OSMA dues are \$100 annually, and the last increase was in 1969 (from \$75 to \$100). State medical associations of comparable size and their current dues are: Iowa—\$150; District of Columbia—\$145; Colorado—\$130; Kentucky—\$130; Arizona—\$120; Oregon—\$115; Kansas—\$100.

*1973-1974 Budget*

The budget below is only a guide to the financial operations of the OSMA, but it is useful in apportioning income to the various expense categories and in evaluating overall association funding. The following budget is tentatively submitted, since it may need

to be altered later based on actions which may be taken at this annual meeting.

INCOME

Membership Dues	\$200,000	
Interest Income	4,000	
Annual Meeting	20,000	
Journal	28,500	
Building Lease	4,200	
AMA Commissions	2,000	
Directory	3,000	
Total Income		\$261,700

EXPENSE

Fixed Expenses	\$156,000	
Depreciation	5,000	
Student AMA	1,000	
Councils and Committees		
Public Policy	3,500	
Insurance	500	
Professional		
Education	2,500	
Socio-Economic	500	
Public Health	1,000	
Prof. & Intervocational		
Relations	500	
	8,500	
OSMA Newsletter	1,500	
Scholarship and		
Loan Fund	10,000	
In State Travel	5,000	
Out State Travel	14,000	
Journal	40,000	
Annual Meeting	20,000	
Okla. Council for		
Health Careers	3,600	
Mortgage Payments	5,485	
Total Expense		\$270,085
Deficit		\$ 8,385

If dues were increased by \$10 annually, income would increase by \$20,000 . . . if dues were increased \$25, income would increase by \$50,000. The increase would not be effective until January 1, 1974, and only five-twelfths would accrue to the benefit of the next fiscal year (\$8,330 for a \$10 increase, and \$20,830 for a \$25 increase).

RECOMMENDATION:

The House of Delegates should recognize that a deficit is expected for the next fiscal year.

Report of the  
COMMITTEE ON PLANNING

Committee Members

Lucien M. Pascucci, MD, Chairman  
Stanley R. McCampbell, MD  
C. Riley Strong, MD  
Roger J. Reid, MD  
M. Joe Crosthwait, MD  
Robert J. Hogue, Jr., MD

C. Alton Brown, MD  
Rex E. Kenyon, MD  
Orange M. Welborn, MD  
Arnold G. Nelson, MD  
Charles E. Smith, MD

SECTION I  
Annual Meeting

The committee evaluated the question of continuing the OSMA annual meeting in the traditional manner (alternating between Oklahoma City and Tulsa) or attempting to consolidate it with the joint meeting of the Oklahoma City Clinical Society and the Oklahoma Academy of Family Physicians (planned to always meet in Oklahoma City).

One important problem was felt to be the attitude of Tulsa physicians toward the elimination of Tulsa as a regular meeting site. The Tulsa County Medical Society surveyed its members on this matter . . . of 260 replies, 100 physicians approved holding the OSMA meeting in Oklahoma City every year, but 96 were opposed and 61 had no opinion. Thus, there would likely be a problem if the OSMA joined with other organizations and met in Oklahoma City every year.

There would also be problems in conducting inaugural banquets for three organizations and in scheduling business meetings of the various groups without conflict.

In view of these problems, the committee recommended to the OSMA Board of Trustees that the association should continue to alternate its annual meeting between Oklahoma City and Tulsa until further study could be carried out. The prospect of meeting jointly with the other two groups on alternating years in Oklahoma City was favorably discussed, and the prospect of amalgamating with the Oklahoma Academy of Family Physicians on a Tulsa-Oklahoma City basis should be explored.

At any rate, it is hoped that we can avoid in the future what has happened in 1973 . . . two major medical meetings scheduled only 25 days apart.

SECTION II  
Abortion Survey

The 1972 House of Delegates directed that physicians' attitudes toward liberalized abortion and toward the delivery of contraceptive services to sexually active minors should be determined by a statewide survey. The House further directed that the findings of this survey should be made available to the OSMA membership, the Oklahoma Legislature and the public.

The survey was carried out in the fall of 1972 . . . the findings were published in the OSMA Journal and released to the press.

Below is a summary of the survey . . . and

this is now available for any further disposition as may be deemed necessary by the House of Delegates.

### Survey Results:

The questionnaire was sent to all members of OSMA of whom 60% responded. This is an average response to a questionnaire which was circulated on one occasion.

Because not all members of the OSMA responded to the questionnaire, it was arbitrarily decided to use a 2/3 majority (i.e., greater than a 67% majority) as a clear majority response and not 50%.

### Abortions:

The questionnaire data indicated that physicians in the State of Oklahoma approve of abortions:

- if the life of the mother would be endangered by continuation of the pregnancy (94% approval).

- if the pregnancy results from rape (90% approval).

- if the pregnancy results from incest (87% approval).

- if there is a significant risk that the baby would be deformed (86% approval).

- if the physical health of the mother would be significantly impaired by the pregnancy (89% approval).

- if the mental health of the mother would be injured by the pregnancy (79% approval).

A *clear majority* decision was not reached in the following situations of abortion:

- for an unwed mother (62% approval).

- for an unwed mother (62% approval) (four or more living children) (55% approval).

- for social reasons such as pregnancy in a woman of 35 years old or greater (50% approval).

- for economic reasons such as the parents cannot afford another child (53% approval).

- for birth control failure such as woman pregnant with I.U.D. in place (54% approval).

In regard to methods or procedures of administering abortion cases, the following statements were supported by a *clear majority*:

- the husband's consent for an abortion should be required if the husband is available (72% approval).

- abortions should be performed only in hospitals accredited by the Joint Commission on Accreditation of Hospitals (71% approval).

However, a clear majority decision was *not* obtained regarding whether abortion by a competent physician be available upon her own request to any woman capable of giving legal consent (54% approval).

In a check on legal preferences:

36.8% preferred a repeal of all abortion laws with abortion to be decided by physician and patient alone.

23.4% preferred some extension of Oklahoma law to include social reasons for abortion.

14.0% preferred Oklahoma's present abortion law remain.

11.6% preferred abortion on request during the first 12 weeks of pregnancy.

7.0% preferred abortion on request during the first 20 weeks of pregnancy.

2.7% preferred no legal abortions be available.

4.5% said they didn't know what their preferences were.

The above check on preferences does not give a clear mandate on any *one* course of legal action regarding abortion laws. However, there is a mandate that there should be some legal statement in the law books different from that which now exists.

A further question relating to abortion law asked that if the law is changed, should it provide for abortions only after consultation. 55.4% of the responders said yes and 35.7% said no. However, it is not known from the survey whether those who answered "*no*" to this question are those who would be also satisfied with consultation but prefer no consultation as their first choice. Those who voted for consultation preferred a consultation body of physicians 39% rather than a committee of hospital medical staff 16%.

A clear majority (78%) asked that the results of this abortion survey be released to the OSMA membership, legislature, press and the OSMA Board of Trustees; and that the OSMA develop a formal position on the question of abortion for presentation to the legislature based on the findings of the survey.

### Summary:

A clear majority of physicians (greater than 67% of the responders to the questionnaire) approve of abortion:

- if the life of the mother would be endangered by continuation of the pregnancy.

- if the pregnancy results from either rape or incest.

- if there is a significant risk that the baby would be deformed.

- if the physical and/or mental health of the mother would be impaired or injured by the pregnancy.

*And that* —the husband's consent for an abortion be obtained if the husband is available.

*And that* —approved abortions be performed only in hospitals accredited by the Joint Commission on Accreditation of Hospitals. Further investigation appears needed in re-

gard to views on the composition of the consultation committee.

The responders asked that their views be made known to appropriate agencies and that the OSMA present a formal position to the legislature.

### Contraceptive Information and Methods

A clear majority (79%) thought that *contraceptive information* should be given to sexually active minors when requested *without* parental consent.

However, 59% (not a clear majority) thought *contraceptives* should be given to sexually active minors when requested without parental consent.

The OSMA was requested to "take a stand" based on the survey in regard to contraceptive information (69%) but not contraceptives (58%).

### SECTION III RESOLUTIONS TO THE AMA

It has been customary for the last few years for the Committee on Planning to formulate resolutions for submission to the House of Delegates to the American Medical Association. Prior to the midwinter meeting of the AMA in Cincinnati, the committee drafted resolutions as follows:

1. "Congressional Investigation of the Medicare Administration."
2. "Health Maintenance Organizations."
3. "Medicare Regulations."
4. "Medicare 'Explanation of Benefits' Form."
5. "The Shortage of Rural Physicians."
6. "Physician-Patient Relationship."
7. "Curriculum in the Socio-Economics of Health Care."
8. "AMA Congress on Medical Quackery."

These resolutions were subsequently approved by the OSMA Board of Trustees and were generally well-received by the AMA.

### SECTION IV LEGISLATIVE FIRST AID STATION

The OSMA pioneered a "Doctor-of-the-Day" program for the Oklahoma Legislature in 1969. To our knowledge, we were the first state medical association to establish a comprehensive program of this type for the benefit and protection of the legislators. A doctor and a nurse are present at a fully-equipped clinic in the Capitol building at all times the Legislature is in session. The legislators have been uniformly grateful.

However, the OSMA was contacted by the President of the Oklahoma Senate in January requesting that the OSMA join forces with the Oklahoma Osteopathic Association to provide the service.

At the request of the Committee on Plan-

ning, the Senator was advised: (1) The OSMA originated the idea nationally; (2) The OSMA is proud of the service it has provided to legislators; (3) The OSMA wants to continue the program; (4) The program for the 1973 legislative session has already been developed.

The OSMA letter was apparently accepted for 1973 . . . but we can anticipate further efforts by the osteopaths to participate in what has been an exclusive, innovative OSMA activity.

### Report of the FINANCIAL AID TO EDUCATION COMMITTEE (APPROVED)

#### Committee Members

H. E. Denyer, MD, Bartlesville, Chairman  
Ed L. Calhoon, MD, Beaver  
Lucien M. Pascucci, MD, Tulsa  
Stanley R. McCampbell, MD, Okla. City  
C. Riley Strong, MD, El Reno

and

### THE FOUNDATION FOR COMMUNITY MEDICAL CARE

#### Board of Directors

Ed L. Calhoon, MD, Beaver, Chairman  
Hillard Denyer, MD, Bartlesville  
Lucien M. Pascucci, MD, Tulsa  
Stanley R. McCampbell, MD, Okla. City  
C. Riley Strong, MD, El Reno  
Mr. Lloyd R. Barby, Beaver  
Mr. Archibald Edwards, Okla. City  
Mr. J. M. Rector, II, El Reno  
Mr. Guy Swadley, Jr., Eufaula  
Mr. William Wise, Idabel

For the past two years, the Oklahoma Foundation for Community Medical Care has assumed the responsibilities heretofore conducted by OSMA's Financial Aid to Education Committee. This occurred as a result of the House of Delegates desire to provide incentives for young physicians to practice in needy areas of the state. The committee has transferred approximately \$20,000 to the Foundation to help finance the education of medical students who have agreed by written contract to practice in a community approved by the Board. A complete accounting of the Loan and Scholarship Fund is attached, and indicates that in 1973 there will be approximately \$16,000.00 available for loans to students (\$5,000.00 Loan Repayments and \$11,000.00 from dues income). These monies will enable us to continue to finance the five students we now have in school and perhaps start one or two more.

In addition, the Foundation plans to solicit funds outside the medical profession. The Department of Health, Education and Welfare has determined that 38 of Oklahoma's

counties have a physician shortage and qualify for forgiveness benefits under the Health Professions Student Loan Program. The number of physicians needed is estimated to be 205. The Foundation's Board of Trustees has approved a letter (attached) to be mailed to communities asking their support of our program. The Board wants to confirm the need for physicians in each community before mailing the letters. Contact will be made with physicians in the county before letters are mailed.

The shortage of physicians in the rural areas of Oklahoma was not created overnight nor it be cured in short order. The scholarship program is not a panacea and there are many pitfalls to such a program.

The scholarship amount (up to \$5,000.00) is sufficient to attract numerous candidates, more than we can finance, and regardless of our attempts to pick the most qualified students, we are certain to make mistakes. However, it is significant that the State Legislature continues to finance a very similar program, (1973 appropriations are expected to be \$100,000) and has 18 students enrolled who have definite commitments to rural Oklahoma. We have attempted to meet with the Board of the State Trust but have been unable to do so at this time. We hope to meet this summer or early fall prior to the selection of students for the fall semester. A joint endeavor would have obvious benefits.

As mentioned earlier in this report, the Foundation is relatively new; there are many things that might be done to expand its financial base and its procedure for selecting needy communities. We have had informal discussion, at the staff level, with the Council for Health Careers to see if they can aid us in field work. It is the Foundation's sincere desire that the physicians placed will find permanent rather than temporary homes.

As a point of information to the House, the National Health Service Corps, created by the 91st Congress has assigned four physicians to Oklahoma. There are 2 at Laverne, one each at Marietta and Hominy. Physicians can fulfill their military obligation by serving two years in a needy area of the United States.

This program seems to be working fairly well. OSMA and the County Medical Society must certify that the community has a need before a physician can be assigned.

#### RECOMMENDATIONS:

It is recommended that the Financial Aid to Education Committee and the Foundation for Community Medical Care Committee continue its activities.

#### OKLAHOMA STATE MEDICAL ASSOCIATION LOAN AND SCHOLARSHIP FUND, INC.

##### BALANCE SHEET—AS OF JULY 31, 1972 ASSETS

Cash	\$ 6,450.67
Dues receivable from OSMA (5-31-72)	11,187.31
Loans receivable from students	41,526.81
	<u>59,164.79</u>
Fund balance	59,164.79

##### YEAR TO DATE INCOME AND FUND BALANCE

Interest Income	1,271.65
Dues income	11,187.31
	<u>12,485.96</u>
Fund balance 1-1-72	46,705.83
Fund balance 7-31-72	59,164.79
Prepared without audit	

#### OKLAHOMA FOUNDATION FOR COMMUNITY MEDICAL CARE, INC.

##### BALANCE SHEET—AS OF JULY 31, 1972

Cash	\$ 1,986.96
Conditional loans outstanding	15,000.00
	<u>16,986.96</u>
Fund Balance	16,986.96
Prepared without audit	

##### Letter Requesting Support

Dear:

Your community has been selected by our foundation as being in high priority need of medical doctors. Our opinion has been verified by physicians in your area.

The Oklahoma Foundation for Community Medical Care is a non-profit corporation established for the sole purpose of providing medical doctors for needy Oklahoma communities. Our Board of Directors is comprised of past and present officers of the Oklahoma State Medical Association, together with an equal number of laymen representing business, ranching, banking and insurance. The directors serve without pay . . . all available funds are expended toward the achievement of our goal.

OFCMC loans up to \$5,000 a year to needy medical students. In return, the students sign a contract to practice at least one year in a community recommended by our Board for each year that financial assistance is received. If the contract is honored, no repayment of the loan or loans is necessary. If not, the principal must be returned to the foundation with interest.

To date our foundation has been entirely supported by contributions from medical doctors . . . we only have five students committed to us at the present time. More funds are needed if we are to achieve the improved distribution of medical doctors throughout the state.

Your interest in our foundation is invited. All contributions to the foundation are tax deductible.

For more information, call our volunteer staff (employees of the Oklahoma State Medical Association) . . . Mr. Don Blair, Mr. David Bickham or Mr. Ed Kelsay (405, 842-3361, Oklahoma City).

Cordially,  
Ed L. Calhoon, MD  
Chairman of the Board  
ELC :km

Report of the  
MEDICAL CENTER LIAISON  
COMMITTEE  
(APPROVED)

*Committee Members*

Harold W. Calhoon, MD, Tulsa, Chairman  
Leonard P. Eliel, MD, Okla. City  
C. S. Lewis, Jr., MD, Tulsa  
G. Rainey Williams, MD, Okla. City  
C. Riley Strong, MD, El Reno  
Oliver Patterson, MD, Sapulpa  
Wendell L. Smith, MD, Tulsa  
Robert S. Ellis, MD, Okla. City  
M. Boyd Shook, MD, Okla. City  
Billy Dale Dotter, MD, Okeene  
Robert E. Engles, MD, Durant

SECTION I  
MEDICAL STUDENT LIAISON

It has become a yearly function of your committee to assist freshman and sophomore medical students at the OU Medical School in seeking summer employment.

In past years a statewide plea has been made for physicians to hire medical students to work during the summer. However, this has proven to be impractical, since most of the students live in Oklahoma City and find it inconvenient to give up their living quarters to go to another community for the summer and because the new class schedule leaves only 8 and 12 weeks between the Spring and Fall semesters.

This year, your committee has concentrated on certain areas of the state . . . specifically Oklahoma City and Tulsa . . . in seeking summer positions. At the time this report is written, nearly thirty positions have been secured.

Once a position is located, it is up to the medical students' organization to match appropriate students with job opportunities. In all cases, however, the final determination of employment is made between the physician and the student . . . either having the prerogative to refuse.

In addition to summer employment, your association also aided the officers of the OU SAMA chapter to attend their national meeting. A small financial contribution was made

to assist them in transportation. The committee feels that a consistent dialogue with the medical students is beneficial to both parties.

The President of the OU SAMA Chapter met with our committee and proposed that the association's Constitution and Bylaws be changed to permit the seating of two voting delegates in the House of Delegates. Your committee was impressed with the interest of the OU medical students in the association's affairs and feel that if such a change in the Bylaws could be effectuated that we would support it. However, when the proposition was studied by the Constitution and Bylaws Committee, it was determined that such an amendment would violate the intent of the Constitution and Bylaws and therefore an alternate amendment has been proposed as will be reflected in that committee's report.

SECTION II  
FINANCIAL AID TO MEDICAL  
STUDENTS

A resolution passed by the House of Delegates in 1971 directed an annual solicitation of the OSMA membership to raise funds to be used for student aid. (A contribution of \$10 is requested). The funds are unencumbered or restricted and can be meted out to students as deemed appropriate by the Associate Dean of Student Affairs. Last year approximately \$3,500 was raised and this year approximately \$4,500. The money is matched 9 to 1 by the federal Health Professions Loan Fund, thus the College of Medicine will have almost \$45,000 for student aid for 1972-73. As the loans are repaid they accrue to the College of Medicine and are used to make new loans. However, the funds cannot be matched again, with federal dollars.) It is obvious that if the program is continued the association will have been responsible for a substantial student aid fund.

SECTION III  
MEDICAL SCHOOL ADMISSIONS

The 1972 report of this committee contained a lengthy dissertation on the "Report on the Admission Policies and Processes of the University of Oklahoma College of Medicine." The committee commended the school for preparing the comprehensive report but recommended that the Board of Trustees officially request the OU College of Medicine to change its bylaws to provide that at least 50% of the Admissions Board be composed of primary care physicians in private practice. Further, that OSMA submit a list of nominees for the Board positions.

In accordance with the association's request nominees were requested from OSMA and the AAFP—of the 25 physicians on the board 12 are private practitioners in primary

care specialties. The Admissions Board now consists of 34 members of which 9 are students. However, the final class selections are made by a six-man physician committee. The 1972-73 class enrollment totaled 146—73 students are from rural areas of the state, 60 are from metropolitan areas and 13 are from out of state.

At the risk of appearing 'male chauvinists,' representatives of the committee questioned the wisdom of admitting 28 females in the 1972-1973 class. Representatives of the school assured our committee that reports indicate that the percentage of female graduates practicing is as high as that for males. A report has been requested, see recommendations.

#### SECTION IV FINANCIAL PLIGHT OF THE OKLAHOMA UNIVERSITY HEALTH SCIENCES CENTER

Since last summer there has been a plethora of reports, investigations and predictions concerning the Health Sciences Center and its various programs. Some have been constructive, some destructive — all discouraging. To further complicate matters, the Legislature has indicated strong interest in appropriating start-up funds for a College of Osteopathy in Tulsa and the initial monies for a Branch — two-year Clinical School of Medicine in Tulsa.

Committee and Association representatives have had extensive meetings with the Higher Regents, Legislative Leaders, the Governor, Civic Leaders and School Officials to stay abreast of developments and offer assistance and advice.

In a meeting with the Higher Regents last summer the association set forth the following as its priorities:

1. The adequate funding of the Oklahoma Health Sciences Center, its College of Medicine and Related Health Programs;
2. Funding of a Branch of the College of Medicine in Tulsa to train medical students during the clinical years;
3. Development of new programs for training additional health manpower.

While the regents were receptive to the OSMA delegation, they nonetheless approved the submission of an application to the National Institutes of Health for funding the osteopathic school—the funding was subsequently denied.

As the financial conditions of the center became more widely publicized and various recommendations made, the association's President met with Governor Hall to discuss the association's involvement. Dr. McCampbell suggested that damaging reports be suppressed, that a group of respected leaders be

appointed to aid in the solution process and promised the help of the association. The Governor was appreciative of the suggestions and asked that a small committee be appointed to advise him on HSC affairs. Dr. McCampbell's comments to the press following the meeting were widely publicized.

The Higher Regents have hired a highly regarded consultant firm to develop recommendations on the center's operation. There have been interim reports filed, and a multitude of suggestions. It would be presumptuous for the committee to attempt to analyze and report on these suggestions. It is our opinion that the Center is moving in a positive direction and that the people making decisions about its future have the best interest of medical education and the health of Oklahomans uppermost in their minds.

#### SECTION V TULSA MEDICAL SCHOOL

The plans for an expanded medical education program in Tulsa began with the commissioning of the Boos, Allen and Hamilton study of 1969. The summary of that report stated in part:

1. The Tulsa area appears to be a logical location for a future medical school in Oklahoma.
2. Long-range planning should be started to increase Tulsa's ability to support a medical school in the future.

In keeping with these findings, Tulsa has improved and strengthened its graduate and postgraduate programs in anticipation of securing funding for undergraduate programs. The Tulsa Medical Education Foundation brought together the necessary elements for a clinical medical education program. The 1972 Boos, Allen and Hamilton Report substantiated Tulsa's ability to carry out such a program by stating, "*top priority should be given to establishing a two-year clinical school of medicine in Tulsa and expansion of the graduate medical education programs there.*"

The report went further to recommend that the Tulsa school be restricted to two years of undergraduate clinical teaching and that it be affiliated with the University of Oklahoma.

Last year, the Legislature passed a resolution dedicating a portion of the Higher Regents appropriation to the Tulsa Branch. A small sum of money has been allocated for administrative costs but not sufficient funds for employment of a Dean — the first step in getting the program started, even though a search committee has interviewed and recommended candidates for the job.

In this committee's report last year, it was urged that the Tulsa school (if started) be dedicated to the needs of Oklahoma, and our

state desperately needs primary care physicians. It was further stated that the emphasis at the school "... be toward the clinical practice of medicine rather than toward research or academic medicine."

The Oklahoma Legislature is extremely concerned about the lack of physicians migrating to our rural areas, it is for this reason, along with the idea "that Osteopaths go into general practice in small communities" (this is a misconception that has been fostered by an excellent campaign — the distribution of osteopaths in Oklahoma is practically the same as the distribution of MD's) that significant support has been generated for the osteopathic school. It is obvious then if the Tulsa medical education program is to respond to the needs of the state and receive the financial backing necessary to succeed, they must be structured to train primary care physicians—*predominantly* Family Physicians which will be involved in direct patient care.

It is very likely that the Oklahoma Legislature will appropriate "start up" funds for both a college of medicine and a college of osteopathy. This would indeed be unfortunate, the differences between allopathic and osteopathic medicine are more political than scientific. Two additional schools training physicians would appear to place an almost unbearable strain on the resources of Oklahoma and the outcome could be two "anemic" institutions with excellence a futile goal rather than a reality. This House of Delegates should consider carefully these very important matters, for the decisions made in the near future may set the course of medical education in our state for decades to come.

SECTION VI

SUMMARY AND CONCLUSIONS

There are several important facts not mentioned in the preceding sections that should be brought to the attention of Oklahoma physicians.

A. Regardless of the charges and countercharges regarding our medical institutions, an irrefutable fact is that they are "over committed and underfinanced."

B. While many excellent faculty members were willing to try to keep a "sinking ship" afloat, there is an exodus taking place that, unless halted, will jeopardize the quality of medical education our future health graduates will receive.

C. The morale of the HSC personnel is at an all time low and unless bolstered soon, can become extremely serious.

D. While many experts are making decisions about the Center, the Schools desperately need the continued support of organized medicine.

RECOMMENDATIONS:

1. It is recommended that the association continue to encourage medical students' interest in the association's affairs.
2. If feasible, the Office of Student Affairs be asked to produce a brief summary of its loan funds provided by OSMA, mostly to be used at the time of the solicitation.
3. That the report requested on the practice habits of male medical school graduates as compared to female graduates be completed, reviewed, and reported at the next annual meeting.
4. That association members continue to serve on the Admissions Board.
5. That association members continue to actively monitor the decisions being made regarding the OU Health Sciences Center and that they offer advice and counsel when requested and appropriate.
6. The House of Delegates again endorse the branch school of medicine planned for Tulsa and further that it encourage the Higher Regents, the OU Regents, and OU Health Sciences Center Officials that the school be dedicated to the training of family physicians who will be directly involved in patient care.

Report of the  
CONSTITUTION AND  
BYLAWS COMMITTEE  
(APPROVED AS AMENDED)

Committee Members

- George H. Garrison, MD, Oklahoma City,  
Chairman  
E. N. Lubin, MD, Tulsa  
Arnold G. Nelson, MD, Midwest City  
Clinton Gallaher, MD, Shawnee  
Paul H. Rempel, MD, Enid  
Claude E. Lively, MD, McAlester

As provided in the bylaws of the association, your committee has as its purpose the responsibility to consider amendments to the bylaws and constitution as proposed by members of the association or by component societies. In addition, your committee may originate amendments to the constitution and bylaws, if it so desires. During the past year your committee has been asked to consider five changes in the association's bylaws.

Each of these five proposals will be taken up separately.

1. Full Membership for Interns and Residents.

The American Medical Association's House of Delegates has asked all state medical associations to grant interns and residents full membership rights with nominal dues.

At the present time the OSMA bylaws provide that interns and residents may join the association, and its constituent societies, as "Junior Members." This membership cate-

gory has no dues or assessments. It allows the person holding it to be eligible for all privileges of OSMA membership except voting and holding office.

Your committee is of the opinion that the OSMA is already in compliance with the request from the AMA House of Delegates. Therefore, it recommends that no action be taken on this subject.

## 2. Officers to be Board Members.

OSMA President, Stanley R. McCampbell, MD, has requested that the bylaws be amended to provide that all "General Officers" of the association be given voting privileges in the association's Board of Trustees. Doctor McCampbell personally appeared before your committee and explained that he felt that this amendment would give the association's elected officials a greater sense of leadership. At the present time, with the exception of the President, the elected officers do not truly have a voice before the Board of Trustees.

The bylaws of the association specify that the general officers are the President, President-Elect, Immediate Past-President, Vice-President, Secretary-Treasurer, Speaker of the House of Delegates and Vice-Speaker of the House of Delegates. It should be noted that delegates and alternate delegates to the AMA House of Delegates are not classified as general officers.

In order to amend the bylaws to accomplish the above stated purpose, it would be necessary to change Section 1.00 of Chapter V, under the heading "BOARD OF TRUSTEES" to read as follows: (underlined portion is new language): "COMPOSITION. The Board of Trustees is composed of *the association's General Officers* and Trustees to be elected from each of the fourteen authorized Trustee Districts . . ."

It would also be necessary to amend Section 3.00 of that same chapter to provide in the last sentence, "*The General Officers* shall serve on the Board of Trustees during *their terms* of office."

It would also be necessary to amend Chapter VII, "DUTIES OF OFFICERS," to provide that each of the General Officers is to be a member of the Board of Trustees. Section 1.00 dealing with the President already specifies this. It would be necessary to amend Section 2.00 of Chapter VII dealing with the President-Elect. The second sentence in that section could be amended to read as follows: "During his term of office as President-Elect, he shall be a member of the House of Delegates, the *Board of Trustees* and of certain committees as provided in these bylaws." Section 3.00 dealing with the Vice-President could be amended by add-

ing to the end of the second sentence in the section so that it would read, "He shall be a member of the House of Delegates *and the Board of Trustees.*"

Section 4.00 dealing with the Secretary-Treasurer could be amended by changing the first sentence to read, "The Secretary-Treasurer shall be a member of the House of Delegates *and the Board of Trustees.*"

Section 5.00 dealing with the Speaker of the House of Delegates could be amended by changing the first full sentence to read, "The Speaker shall be a member of the House of Delegates, *the Board of Trustees*, and of committees . . ."

Section 6.00 designating the Vice-Speaker of the House could be amended by wording the first sentence to read, "The Vice-Speaker shall be a member of the House of Delegates *and the Board of Trustees.*"

Section 7.00 dealing with the Immediate Past-President could have its last sentence amended so that it would read as follows: "He shall serve as Chairman of the Committee on Planning, *as a member of the Board of Trustees* and as a member of other committees as specified in these bylaws."

Your committee recommends that this change in the bylaws be implemented.

## 3. Executive Committee Authority.

President McCampbell also requested that the OSMA's Executive Committee be given some administrative authority. Your committee noted that the Executive Committee is not a true "executive" committee in that it is not made up of the general officers of the association.

The bylaws specify that the Executive Committee members shall be nominated by the President and confirmed by the Board of Trustees. However, they have only an advisory capacity to the President.

Doctor McCampbell explained that often the President of the association is called on to make administrative decisions of great importance to the association. However, they are decisions that must be made on short notice and the President does not have time to call for a full meeting of the Board of Trustees. He felt that if the Executive Committee could be given authority to assist the President in administrative matters, the future Presidents of the OSMA might find the burden of the heavy administrative decisions eased somewhat.

Your committee recommends that Chapter X, Section 5.01, regarding the Executive Committee's authority be amended to read as follows: "DUTIES": "The Executive Committee may act on behalf of the association on administrative matters *not those involving major policy decisions*, providing such actions are not contrary to established administrative policies of the Board of Trustees or

House of Delegates." It shall report all of its official actions to the Board of Trustees and the House of Delegates at the next regular meeting of either. It shall meet on call of the President.

While a majority of your committee recommended passage of this amendment, it should be pointed out that two members felt that if the committee was given this authority, it should be converted to a true "executive" committee consisting of the association's general officers.

#### 4. Membership Categories.

Over the past several years your association has received numerous requests from physicians to be put on some membership status other than fully active. Some requests were occasioned by physicians leaving the state or the United States in order to engage in medical missionary, educational, or some type of philanthropic work. Other physicians making this request were intending to leave the state permanently, but wish to maintain some type of liaison with the association and its membership.

A third type of membership situation has arisen in the past, that of honoring someone for outstanding contributions to the medical profession. The person could be a physician or a non-physician. In the past persons in this category were given "affiliate" memberships in the association.

After carefully considering the three situations outlined above your committee determined that it would recommend the establishment of two new membership categories . . . "honorary members" and "corresponding members," and change the current "affiliate member" category to some extent.

The following is a recommendation as to the exact wording to appear in the OSMA bylaws under each section.

Section 2.04 of Chapter I is amended to read as follows:

**"2.04 AFFILIATE MEMBERS.** Affiliate Members shall be those so classified by component societies who are ineligible for regular membership, but meet one or more of the following classifications: (a) Active members of other constituent associations of the American Medical Association; (b) Active members of the association who find it necessary to leave the state in order to engage in medical missionary, education, or philanthropic labors are eligible for this classification of membership for periods of time related to individual circumstances as may be determined by the Board of Trustees."

**2.041 RIGHTS.** Affiliate Members may be required to pay partial dues in an amount to be specified by the Board of Trustees. They shall be entitled to all of the privileges of

membership, except voting and holding office.

The two new membership categories should be placed in the bylaws by amending Chapter I and adding the following new sections:

**2.06 HONORARY MEMBERS.** Honorary Membership in the association may be conferred on those persons who meet one or more of the following classifications: (a) Non-physicians engaged in medical education or medical research; or (b) Other persons whose contributions to medicine justify the honorary membership. Petition for such election to Honorary Membership must originate in a component society. Approval of the petition by the Board of Trustees and by the House of Delegates is necessary before an Honorary Membership may be awarded.

**2.061 RIGHTS.** No dues or assessments shall be required of Honorary Members. They shall be entitled to all of the privileges of membership, except voting and holding office. However, they shall not receive any publication of the association except by subscription.

**2.07 CORRESPONDING MEMBERS.** Corresponding Membership in the association may be conferred on those active members of the association who find it necessary to leave the state, but desire to retain contact with the association and their colleagues. Petition for election to corresponding membership may originate in a component society or the Board of Trustees. Approval of the petition by the Board of Trustees is necessary before Corresponding Membership may be awarded. However, the Corresponding Membership category may be maintained by an individual only so long as he is in good standing in a constituent component of the American Medical Association or if he has retired from active practice while out of state.

**2.071 RIGHTS.** Corresponding Members shall be required to pay partial dues in an amount to be specified by the Board of Trustees. They shall be entitled to all of the privileges of membership, except voting and holding office.

Your committee was unanimous in its decision to recommend that all three of the above outlined membership categories be adopted.

#### 5. Medical Student Membership.

The Medical Center Liaison Committee of the association requested that the Constitution and Bylaws Committee consider bylaws amendments to "admit medical students to the OSMA on a non-privileged basis and that two voting delegates to the OSMA's House of Delegates be elected by the OU SAMA Chapter."

After carefully considering this request, your committee is of the opinion that medical students should be given non-privileged

membership in the association. However, the granting of voting privileges to two students to be seated in the House of Delegates, in your committee's opinion, is violative of the intent of the association's constitution and bylaws and the association's purpose . . . i.e., to represent medical doctors. To amend the bylaws to provide for voting delegates would be to establish the OU SAMA Chapter as a constituent society of the association, a position it is clearly not entitled to. However, your committee does recommend that two students be seated as non-voting members of the House of Delegates, but with privilege of the floor.

The creation of a student member can be accomplished by amending Chapter I of the bylaws by adding a new section as follows:

**2.08 STUDENT MEMBERS.** Persons serving as fulltime medical students in the Oklahoma University College of Medicine, upon application of a component society, may become student members of the component society and of this association. Membership in this classification is limited to the period of training.

**2.081 RIGHTS.** No dues or assessments shall be required of student members. They shall be entitled to all of the privileges of membership, except voting and holding office, except as otherwise provided in these bylaws. However, they shall not be entitled to receive any publication of the association except by subscription.

In order to amend the bylaws to provide for two student members of the House of Delegates it will be necessary to change Chapter IV, Section 1.00 to read as follows:

**"1.00 COMPOSITION.** The House of Delegates shall be comprised of the general officers of the association, Delegates and Alternate Delegates to the American Medical Association, Trustees and Alternate Trustees, Delegates elected by the component societies, and two *non-voting delegates to be elected by the Student American Medical Association Chapter located at the Oklahoma University College of Medicine.*"

A new section 1.04 in the same chapter will have to be added as follows:

**"1.04 SAMA REPRESENTATION.** The two delegates from the Oklahoma University SAMA Chapter shall be allowed full privileges of the House of Delegates, except voting, notwithstanding Section 1.01 above."

(The section referred to is the one which established the qualification for delegates . . . i.e., that they must have been active members of the association for at least two years.)

A question was raised regarding the proposed branch medical school in Tulsa, and whether or not they should be entitled to

two representatives. Your committee hastens to point out that the current thinking of the medical school administration is that the student bodies in Oklahoma City and Tulsa will be one and the same.

Your committee recommends the adoption of the above outlined amendments.

## Report of the COUNCIL ON INSURANCE (APPROVED)

### Council Members

C. Alton Brown, MD, Chairman  
Robert W. Kahn, MD  
David D. Fried, MD  
William G. Bernhardt, MD  
Virgil Ray Forester, MD  
George N. Beckloff, MD  
Howard A. Bennett, MD  
C. E. Woodard, MD  
William M. Leebron, MD

### SECTION I GROUP TERM LIFE INSURANCE

This program is underwritten by the Massachusetts Mutual Life Insurance Company through the Wilson and Wilson general agency.

The company has offered a group term life insurance program to OSMA members since 1956.

The program provides \$50,000 of coverage prior to age 60, \$25,000 from age 60 through 64, and \$10,000 from age 65 through age 69. Accidental death benefits are included providing additional benefits of \$100,000 prior to age 60 (\$200,000 additional for death on a common carrier). Other features include dismemberment and loss of sight benefits, waiver of premium and private flying coverage.

Since the inception of the plan through April 1, 1972, total premiums have been received in the amount of \$988,260. Total incurred claims and expenses during the same period were \$1,010,381. In addition, there have been dividends in the amount of \$9,628. As a result, the company has sustained a net loss of \$31,750 during the 16-year period. It is interesting to note, however, that the company's net loss reached a peak of \$136,000 in 1968 and was \$84,568 at the end of the 1971 policy year. Underwriting losses have been improving.

For the period between April 1, 1972 and April 1, 1973 total premiums of \$42,275 have been received. Total incurred claims and estimated retention will be approximately \$54,450. Thus, a net loss of \$12,175 will be incurred. During the past year, five physicians died who were insured under the plan.

As of March 31, 1973, 280 physicians were insured for \$5,193,375 of life insurance and \$8,268,375 for accidental death.

The American Medical Association has introduced a competitive program at comparable rates, although the AMA coverage is not as broad and accidental death benefits are not as great as the OSMA program.

## *SECTION II PROFESSIONAL LIABILITY INSURANCE*

The program is underwritten by the Pacific Employers Indemnity, a subsidiary of the Insurance Company of North America.

This program is one of the model malpractice programs in the nation. OSMA members are able to buy coverage with a strong company at 50% or less of the premium rates being charged by other companies licensed in Oklahoma. Our rates are the lowest in this region of the U.S. Annual savings to OSMA members amount to about \$900,000 a year.

There have been only two rate increases since 1966, while annual increases are ordinarily the rule in this type of insurance.

Cooperation between the OSMA and the insurance company is especially good. The association's Council on Insurance developed what has turned out to be a model contract with the company which has been emulated elsewhere. The company is required to advise the OSMA of all claims and reserves, thus making it possible at all times for the Council on Insurance to monitor the performance of the plan and to protect members against unwarranted premium increases. To protect against lost policies, the contract provides that the company must report periodically to the OSMA the names of all insureds, the amounts of their coverage and their policy numbers.

In return the OSMA is dedicated to carry out a loss prevention program. An excellent malpractice prevention manual has been prepared by the OSMA staff and has been printed by the insurance company for statewide distribution. Copies are available from the OSMA. If every physician would read and follow the guidelines set forth in the manual, the loss rate could be materially reduced and premium rates could be substantially lower.

Physicians are urged to report potential claims early (by phoning the OSMA Executive Director or the INA Claims Manager) . . . they are urged to keep dated and accurate medical records . . . they are urged to call in consultants in every case which is not responding to treatment, or which develops complications, or where there are medical-legal complications . . . and they are urged to use the medical-legal forms contained in the OSMA malpractice prevention manual.

In 1972, there were 1,683 OSMA members

insured under the program. Premiums of \$900,130 were collected.

## *SECTION III EXCESS LIMITS LIABILITY PROGRAM*

As a companion to the basic malpractice insurance program, the Insurance Company of North America provides the XIC umbrella liability plan. A doctor can buy \$100,000 under the basic plan, then XIC will assume further liability up to as high as \$5 million. The total premium last year was \$199,944, and 915 OSMA members were so insured.

## *SECTION IV MAJOR MEDICAL - HOSPITAL INSURANCE*

A new program offered by the Council on Insurance during the past year is a Major Medical-Hospital Insurance Plan underwritten by the Washington National Insurance Company. A number of options are available in order that a physician may design his program to his own needs . . . deductibles of \$250, \$500 or \$1,000 may be chosen . . . room allowance ranging from \$40 to \$75 is available . . . the maximum benefit per illness may be selected as low as \$24,000 or as high as \$45,000 . . . and the maximum surgical allowance is from \$1,800 to \$3,000.

After the deductible is satisfied (it applies to a specific illness) both inpatient and outpatient benefits are provided.

The plan pays 100% of room charges, 80% of miscellaneous hospital services and supplies, 100% of the surgical schedule, 80% of non-surgical medical charges, 80% of prescribed medicine costs, etc.

As an example of rates, an OSMA member age 44 may insure himself and his wife at a cost of \$330.80 a year for the following benefits . . . \$50 a day room allowance, \$2,000 maximum surgical fee and \$30,000 lifetime benefit per illness.

The program is proving to be highly popular . . . it fills a need for group insurance which was not otherwise being met on a statewide basis.

The plan is also available to the employees of OSMA members with a \$100 deductible per illness.

## *SECTION V DISABILITY INCOME PROGRAM*

The Disability Income Program is underwritten by the Washington National Insurance Company and is administered by the C. L. Frates Company.

This program was formerly underwritten by the Insurance Company of North America. However, in order to obtain a group major medical health insurance plan, it was necessary to provide Washington National with a

collateral program, and INA agreed to transfer the disability income program.

The new Washington National plan provides up to \$2,500 a month indemnity for periods of disability due to illness or accident (vs. only \$1,200 a month under INA). Overall, the new plan costs less than comparable coverage under the former program; however, there were some slight increases in certain age groups, and the insurance agent, the C. L. Frates Company, has attempted to reconcile all problems emanating from the changeover.

Some areas of confusion in the changeover involve a different bracketing of age groups and a variation in the minimum benefits offered by Washington National as compared to INA. INA sold a minimum policy which paid benefits for only three years, whereas the minimum Washington National policy pays for five years. Some physicians were necessarily moved up to the five-year program at a modest premium increase. INA increased premiums under a different age bracket structure, and this has caused some confusion. Other physicians were slated to move into a higher age bracket anyway, and erroneously thought the new plan cost more when, in fact, their rates would have increased under the INA plan.

The fact remains that the Washington National plan is cheaper overall than INA . . . the benefit structure is more realistic in the face of inflation . . . and new members are entitled to more coverage than previously regardless of their insurability.

Lifetime benefits are paid for disability due to accident, and either five years or to age 65 may be chosen for the benefit period on disability due to illness. As previously stated, up to \$2,500 a month benefits can be provided.

The premium income developed to date under the changeover is \$161,196.

#### SECTION VI OVERHEAD EXPENSE INSURANCE

This program is underwritten by the Continental Casualty Insurance Company through C. L. Frates. There are only about 150 OSMA members insured under this plan, and many more doctors could well profit by assuming this type of protection.

The program indemnifies physicians against the cost of keeping their offices open during periods of disability. From \$300 to \$1,500 a month coverage may be purchased for a disability period of 18 months. Benefits may be used to pay the actual overhead costs, including employees' salaries, during periods of disability. Premium costs are tax-deductible.

Premiums received during the past year were \$23,696.

## Report of the COUNCIL ON PROFESSIONAL EDUCATION (APPROVED AS AMENDED)

### Council Members

Robert J. Hogue, Jr., MD, Guthrie, Chairman  
Forest D. Harris, MD, Lawton  
Ralph L. Buller, MD, Hydro  
James F. Tagge, MD, Enid  
Clarence P. Taylor, MD, Ada  
James D. Loudon, MD, Shawnee  
James C. Smith, MD, Tulsa  
Wendell L. Smith, MD, Tulsa  
John A. Blaschke, MD, Oklahoma City  
Irwin M. Brown, MD, Oklahoma City  
David E. Browning, Jr., MD, Tulsa  
John W. Drake, MD, Oklahoma City  
Y. E. Parkhurst, MD, Norman  
Jack W. Parrish, MD, Seminole  
Kenneth W. Whittington, MD, Oklahoma City

### SECTION I INTRODUCTION

A review of the reports of this Council over the past four or five years would graphically illustrate the dilemma the Council faces in attempting to honor its commitment to this organization to make certain that Oklahoma physicians continue their education past the formal training years. It is impossible for the Association to compete with the vast quantity of educational pursuits offered by the variety of medical organizations — some in the most exotic parts of the world. Likewise, it is hard to evaluate the end results of postgraduate education, although the objective is obviously better patient care.

Representatives of the Council attended the third national Conference of State Medical Association Representatives on Continuing Education, and listened to other states' delegates espouse similar frustrations. The national trend in Professional Organizations is "required continuing education." Some rest the "watch dog" authority in their organizations, others in state licensing boards. Some have initiated the requirement themselves, on others it has been imposed by legislative edict.

The AMA Conference was a detailed discussion of four major topics that relate to continuing medical education for physicians; accreditation of continuing medical education by State Medical Associations; requirement of continuing medical education participation for State Medical Association membership; peer review as an educational necessity and self assessment — an educational tool.

Your Council met in a two-day session and used the resources materials of the AMA conference and its findings as background infor-

mation for our meeting. The Council's report will reflect its opinion on these various issues.

## SECTION II

### *Accreditation of Continuing Medical Education by State Medical Societies*

AMA's role in the accreditation of pre-doctoral and formal post-doctoral educational courses is well known; however, its efforts have been extended to the accreditation of continuing medical education programs. State medical societies have been offered the opportunity of seeking and securing the right to accredit courses as an agent of AMA, the purpose primarily being that listings in JAMA and credits for the AMA recognition awards must have AMA approval.

The Council considered the AMA proposal and rejected it. The courses produced by the Council are done in conjunction with the Health Sciences Center Office of Continuing Medical Education which is approved by AMA. Thus, any course conducted by your Council would have AMA approval.

## SECTION III

### *Requirement of Continuing Medical Education Participation for State Medical Association Membership*

Your Council spent more time debating this issue than any other. It is the opinion of the Council that 90% of the Association members are already attending sufficient medical courses to qualify for the AMA Physicians Recognition Award which has been used as the model by states invoking an educational requirement on its membership. The real debate then is on documentation and the effect such a requirement might have on the other 10%. In addition, the whole issue of the value of continuing medical education is raised. As mentioned earlier in this report the trend in professional organizations is toward required continuing education. Oklahoma Nurses, Pharmacists, and Osteopaths all require continuing education for continued licensure.

Kansas, New Mexico, Oregon, Arizona, Pennsylvania, Maryland, New Jersey, Massachusetts, Florida and California either require specific continuing medical education for membership in the state society, or for continued licensure or have strong voluntary programs.

The Council feels the advantages of required continuing education include: better physician services and better patient care; the potential for reducing malpractice insurance rates; it is a good demonstration of medical leadership; it would enhance the public image of organized medicine; it would increase the availability of continued medical education programs.

The Council felt the disadvantages of such a requirement would include: the "ire" of some association members; the unproven assumption that required continuing medical education will involve and educate the physicians who need it most; requirements do not motivate physicians to go beyond a minimum level; it may be a false assumption that required education will result in better patient care.

It is obvious that this is a complicated matter and the Council is not certain that to require association members to attend a certain number of post graduate courses is the right thing to do. It is certain that if continued education for physicians should be required, that the association has a unique role to plan, coordinate, support and evaluate the program that is instituted.

## RECOMMENDATIONS:

Therefore, the council recommends the following:

1. The association begin actively promoting continuing medical education to all its members by all means at its disposal.

2. That all members be asked to voluntarily keep records of the medical courses attended during the next calendar year; that these be voluntarily reported on a form to be designed and approved by the council.

3. The Council evaluate the foregoing and report to the House of Delegates at its annual meeting in 1975 on whether the association should require continuing education for membership in the association.

4. Consideration be given to requiring attendance at a state medical association meeting once every five years as a condition for membership in the association.

## SECTION IV

### *Peer Review as an Educational Necessity*

Since the Council's last meeting the subject of Peer Review has become more prominent with the passage of HR I and the PSRO Amendment. It is the council's opinion that Peer Review offers an opportunity to design specific educational pursuits for specific problems. The findings of the Peer Review committees should in some way be reviewed to see how programs can be implemented on a local level. The council has discussed organizing medical audit teams that would evaluate hospital processes and procedures if requested. It is not our intent to "re-invent the wheel." However, if Peer Review produces data that can be used in the educational process, the council will try to implement such programs.

## SECTION V

### *Self-Assessment — an Educational Tool*

Last year the council recommended that physicians use self-assessment tests to eval-

uate their expertise in special areas. Many of the specialty organizations have developed such tests and they are available at a reasonable charge. These tests can be the beginning of a planned educational program for the physician as well as a confirmation of the learning that has taken place after he has taken courses to correct the deficiencies pointed up by the initial testing.

Many self-assessment techniques utilize expensive electronic equipment that may or may not be necessary to educate physicians. It would be the opinion of the council that the goals of any continuing education pursuit should be to: find out what needs changing; learn how to change it; and change it. The need to evaluate performance is obvious, but might be accomplished by conventional means.

#### SECTION VI *Educational Television*

The council has sponsored the "Always on Tuesday" medical TV series for many years. We pay \$2,000 to the office of continuing medical education to help defray a portion of the expenses of producing and airing the program. Last year the council was directed to conduct a limited survey of the membership to see how often the program was being watched. Two hundred thirty-eight questionnaires were mailed and we received over 50% response. Seventy-three of the respondents indicated they watched the programs either "frequently" or "occasionally," and fifty-three of the respondents rated the programs as Good or Excellent. Based on the results the council recommends the continued financial support of the program.

#### SECTION VII *SUMMARY*

The council feels that meeting the continuing education needs of the association's members is one of the association's highest responsibilities. While a specific course of action to fill these needs is difficult to put before the House of Delegates, it is nonetheless our conviction that every physician member should continue his education to the extent that he is rendering quality medical care to his patients. We encourage physicians to pursue the Physician's Recognition Award, specialty boards, challenge self-assessment tests, or follow any proven educational pursuit that will help them practice better medicine.

#### Report of the COUNCIL ON PROFESSIONAL AND INTERVOCATIONAL RELATIONS (APPROVED)

##### *Council Members*

Orange M. Welborn, MD, Ada, Chairman

E. Edwin Fair, MD, Ponca City  
M. Joe Crosthwait, MD, Midwest City  
Frank W. Clark, MD, Ardmore  
Bryce O. Bliss, MD, Tulsa  
Edgar W. Young, Jr., MD, El Reno  
R. Barton Carl, MD, Oklahoma City  
Joe L. Duer, MD, Woodward  
E. D. Padberg, MD, Ada  
Averill O. Stowell, MD, Tulsa  
Hugh Perry, Jr., MD, Tulsa  
William H. Garnier, MD, Stillwater

##### *Medical-Legal Relations Committee*

Jack L. Richardson, MD, Tulsa, Chairman  
William A. Matthey, MD, Lawton  
Marion C. Wagnon, MD, Del City  
Richard H. Burgtorf, MD, Shattuck  
J. F. Messenbaugh, III, MD, Oklahoma City  
Marvin K. Margo, MD, Oklahoma City  
Richard G. Dotter, MD, Oklahoma City  
Ollie W. DeHart, MD, Vinita  
Theodore R. Pfundt, MD, Tulsa

##### *Committee on Claim Men's Liaison*

Don Rhinehart, MD, Oklahoma City, Chairman  
Jack Richardson, MD, Tulsa  
Orange M. Welborn, MD, Ada  
James Bell, MD, Oklahoma City

#### SECTION I *THE COUNCIL*

The purpose of your council on Professional and Intervocational Relations is to supervise liaison between your association and other professional and vocational organizations. There is one exception to this general statement, and that is the Committee on Cults and Quackery.

About two years ago, it was determined that there was no real need to name all members of the Council's seven different Committees, unless a particular problem arose in that area of liaison. The seven Committees are Cults and Quackery, Medical-Legal Relations, Medicine and Religion, Nursing, Osteopathy, Pharmacy, and Claim Men's Liaison.

During the past year only two of these seven committees were named . . . Medical-Legal Relations, and Claim Men's Liaison. Although the remaining committees remained dormant, the staff continued to collect information to be used if the activation of any committee was indicated.

During the past year the Council has continued to compile a document file on the practice of chiropractic in Oklahoma, and nationwide. A large quantity of the material that has been collected has been used in past years for distribution to members of the Oklahoma Legislature.

The amount of information now available that is "anti-chiropractic" in nature is almost unbelievable. The number of organizations

now speaking out against this cultist practice would seem to indicate that it should be steadily declining. Unfortunately, it seems to be steadily increasing with the United States Congress adding to the increase by authorizing Chiropractors to be paid under Medicare.

The staff of the Association continuously makes use of the information to argue against the expansion of chiropractic practice. The information is also made available to all mass media for their own research.

The recent decision of the American Medical Association to de-emphasize certain of its own areas of activity especially affected the Council's Committee of Medicine and Religion. This was one of the areas the AMA chose to drop from its active programs.

The Association's relationship with the State Osteopathic Association has been somewhat strained during the past year. The decision of the Oklahoma Legislature last year to authorize both a School of Osteopathy and a Medical School in the Tulsa area tended to put the two in conflict, and almost in competition with each other. As it has become clearer that there will not be enough state monies to fund both projects, the tension has heightened.

However, the Council has held itself ready to continue its efforts at liaison with the Oklahoma Osteopathic Association. The Council has retained in mind the recommendation of last year's House of Delegates that any discussions between the two groups should be open and free on any and all problems or areas of concern.

#### **RECOMMENDATIONS:**

1. It is recommended that the Council on Professional and Intervocational Relations continue its liaison efforts with other professional and vocational organizations.

2. Due to the possibility of both a School of Osteopathy and a Medical School in the Tulsa area, it is more important than ever before that the channels of communication between the Oklahoma Osteopathic Association and your Association be kept open. The Council should be encouraged by the House of Delegates to enter into open and free discussions on any and all problems or areas of concern with the Osteopathic Association. Any decision on possible policy changes will, of course, be taken to the OSMA Board of Trustees and/or House of Delegates.

### **SECTION II MEDICAL-LEGAL RELATIONS**

During the past year the Medical-Legal Relations Committee has met on numerous occasions. One of its first activities after the last House of Delegates meeting was to republish and distribute to all Association members and all attorneys in the state the

updated copy of the Medical-Legal Interprofessional Code. The new Code had been adopted by the Bar Association's House of Delegates in December of 1971, and was adopted by the OSMA House of Delegates on May 18, 1972. It was printed and distributed to all Association Members in early July of last year.

The distribution of the new code coincided with the Medical-Legal Institute that was held July 21-22 at Arrowhead State Lodge on Lake Eufaula. Physicians and lawyers throughout the state attended the two-day meeting, and discussed such topics as professional corporations, Uniform Commercial Code, malpractice arbitration, the new Medical Examiner / Unexplained Death Law workmen's compensation, the physician as a witness, and the new interprofessional code.

Since the Medical-Legal Institute is a joint function of the Oklahoma Bar Association and the OSMA, the Committee has long felt that it is best that it be self-sustaining. Therefore, last year a \$40.00 per person registration fee was charged. As in the past years, the Institute again was able to completely pay for itself, and show a small profit. The profit is currently being held in a savings account, and will be used as "seed money" for the next Institute.

Since the Institute is normally held every two years in one of the popular state lodges, it is necessary for the Medical-Legal Committee to arrange for the dates of the next Institute well in advance. The 1974 Medical-Legal Institute will be held at Fountainhead State Lodge Friday through Sunday July 19-21, 1974.

During the past year your Committee has also spent a great deal of time attempting to resolve disputes between physicians and attorneys over various subjects . . . pay for testimony, failure to send medical reports, conduct detrimental to Interprofessional relations, etc. Eight such disputes were handled by the Committee, with all but one settled amiably. Unfortunately that one resulted in a lawsuit between a physician and an attorney.

The Committee is currently considering the sponsorship of a Medical Education Seminar for young lawyers. The purpose of the seminar would be to give the lawyers an in-depth exposure to anatomy, physiology, the nervous system, terminology, etc. . . . concentrating on those areas of medicine to which they might be exposed sometime during their practice. A subcommittee was named to study the possibility of such a medical seminar. At the same time the joint committee discussed the possibility of such a seminar for young medical students on the subject of law.

### **SECTION III CLAIM MEN'S LIAISON COMMITTEE**

The newest committee to function under the Professional and Intervocational Rela-

tions Council is that of the Claim Men's Liaison Committee. During its 1972 meeting, the House of Delegates recommended that the Council continue its efforts to establish liaison with the Oklahoma Claim Men's Association in order to establish a guideline, policy statement, or working code for relationships between physicians and claim men.

Early in this year Council Chairman Orange M. Welborn, MD, of Ada, entered into discussions with the Claim Men's Association. These discussions led to a request that the OSMA President name a special liaison committee.

Doctor Stanley R. McCampbell responded to the request by naming Don Rhinehart, MD, of Oklahoma City as Chairman of the special committee, with members to be Jack L. Richardson, MD, Tulsa; Orange M. Welborn, MD, Ada; and James P. Bell, MD, Oklahoma City. The first meeting of this new committee will not be held until after the 1973 OSMA Annual Meeting.

A working paper had already been drafted by the Claim Men's Association to help facilitate the liaison. Copies of the paper have been distributed to all members of the new committee for their consideration.

The results of the liaison meetings will be brought back to the House of Delegates for further consideration.

#### RECOMMENDATION:

1. It is recommended that the Council's Committee on Claim Men's Liaison be instructed to continue its work with the Claim Men's Association with the idea of bringing back to the House of Delegates a guideline, policy statement, or working code for relationships between physicians and claim men.

#### Report of the COUNCIL ON PUBLIC HEALTH (APPROVED AS AMENDED)

##### *Council Members*

Charles E. Smith, Jr., MD, Oklahoma City,  
Chairman  
Hayden H. Donahue, MD, Norman  
Paul A. Bischoff, MD, Tulsa  
Carl D. Osborn, MD, Ada  
Homer A. Ruprecht, MD, Tulsa  
Wayne J. Boyd, MD, Bartlesville  
James B. Silman, MD, Norman  
Norman Haug, MD, Oklahoma City  
R. Leroy Carpenter, MD, Oklahoma City  
Raymond F. Hain, MD, Oklahoma City  
C. Thomas Thompson, MD, Tulsa  
Nolen L. Armstrong, MD, Oklahoma City  
Donald L. Cooper, MD, Stillwater  
Armond H. Start, MD, Oklahoma City

#### *Committee on Alcoholism and Drug Abuse* Charles E. Smith, Jr., MD, Oklahoma City, Chairman

Jim H. Earls, MD, Oklahoma City  
Floyd T. Hubbard, MD, Henryetta  
E. Edwin Fair, MD, Ponca City  
Donald L. Cooper, MD, Stillwater  
Frank L. Adelman, MD, Enid  
Edward K. Norfleet, MD, Tulsa  
Thomas M. Donica, MD, Oklahoma City  
J. Hartwell Dunn, MD, Oklahoma City  
Ray V. McIntyre, MD, Kingfisher  
W. T. Bynum, MD, Oklahoma City  
Al Paredes, MD, Oklahoma City  
John R. Drumwright, MD, Bartlesville  
O. J. Morgan, MD, Tahlequah

#### *Committee on Immunization*

Armond H. Start, MD, Chairman, Oklahoma City

John C. Kramer, MD, Tulsa  
William L. Edwards, MD, Duncan  
Yale E. Parkhurst, MD, Norman  
Burdge F. Green, MD, Stilwell  
George W. Prothro, MD, Tulsa  
Harris D. Riley, Jr., MD, Oklahoma City  
R. Leroy Carpenter, MD, Oklahoma City  
Delmar L. Gheen, Jr., MD, Tulsa  
Ralph W. Murphy, MD, Ardmore  
James E. Mays, Jr., MD, Oklahoma City

#### *Committee on Laboratory Quality*

Raymond F. Hain, MD, Chairman, Oklahoma City

Dale E. VanWormer, MD, Tulsa  
John F. DeJarnette, MD, Ponca City  
Byron F. Smith, MD, Oklahoma City  
F. R. Hassler, MD, Oklahoma City  
Robert L. Alexander, Jr., MD, Okmulgee  
J. William Hood, MD, Oklahoma City  
M. Boyd Shook, MD, Oklahoma City  
Howard P. Mauldin, MD, Oklahoma City  
E. Stanley Berger, MD, Oklahoma City

#### *Committee on Maternal Mortality*

Paul A. Bischoff, MD, Chairman, Tulsa  
Matthew B. Moore, MD, Tulsa  
Jed E. Goldberg, MD, Tulsa  
Max Deardorff, MD, Tulsa  
Sara DePersio, MD, Oklahoma City  
Phillip J. Maguire, MD, Oklahoma City  
Schales L. Atkinson, MD, Oklahoma City  
James A. Merrill, MD, Oklahoma City  
James R. McFarland, MD, Bartlesville  
George H. Jennings, MD, Oklahoma City

#### SECTION I THE COUNCIL

Almost every aspect of the OSMA's activities deals in some way with the public health. Any request for assistance or advice involving the public health is routed by the Council to an appropriate committee.

During past years your Council has worked on such important programs as emergency medical services, venereal disease control

projects, the National Health Service Corps, the Military Assistance to Safety in Traffic, and a review of medical service in correctional institutions.

In other reports submitted to the House of Delegates you will see results from many of these efforts. The association's legislative staff man, David Bickham, has worked closely with the College of Surgeons' Committee on Trauma, from Tulsa, to develop legislation on emergency medical services.

A venereal disease education project is now being conducted by the Oklahoma Department of Public Health. Although this is not an OSMA program, the Association is doing all that it can to see that appropriate information is disseminated to all state physicians.

In view of recent medical service difficulties at the State Penitentiary, it is interesting to note that in 1969 your Association appointed a special committee to study the medical care being rendered at the State Penal Institutions. In 1970 the House of Delegates received a report from that committee in which it stated that it had made eleven recommendations to the Oklahoma Board of Corrections.

In retrospect it is interesting to note that none of these recommendations were really carried out.

The OSMA staff has worked closely with government and prison officials to help solve their medical service difficulties.

At the direction of the House of Delegates last year, your Council has been seeking the inclusion of a quality health curriculum in Oklahoma's Public School system. Current courses in biology, sciences, physical education and personal hygiene are considered inadequate to give our children the proper knowledge of, and appreciation for, good health.

The problem has been continuously compounded by requiring piecemeal teaching in specific areas . . . such as drug abuse education, for example. While this effort has been somewhat frustrated during the past year, representatives of the Council intend to keep working with other groups to get such a program started. In order to accomplish our stated purpose, we need a curriculum to train teachers and a curriculum for students on all aspects of health, including economics.

#### **RECOMMENDATIONS:**

1. It is recommended that the Council be directed to continue to monitor the national Health Service Corps, and cooperate with it when it is in the best interest of the public and the medical community.

2. It is recommended that the OSMA continue to encourage the State Board of Education and State Superintendent of Public Instruction to develop a quality health educa-

tion curriculum for the public school system for grades 1 through 12.

### **SECTION II COMMITTEE ON ALCOHOLISM AND DRUG ABUSE**

Although your Committee did not meet during the past year, it has been far from inactive. It has continued to conduct its educational program among Association members and the general public throughout the past year.

Over 100 speaking engagements have been filled by members of the Committee, other members of the Association, and OSMA staff personnel on the subject of drug abuse. In addition, the OSMA booklet "Drug Abuse Treatment Manual" was continuously made available to physician members, and numerous requests for copies were filled.

The manual was published over two years ago, and is an 18-page booklet designed specifically to aid physicians in the proper diagnosis and treatment, on a short-term basis, of the drug-intoxicated patient. During its 1972 meeting the House of Delegates authorized your committee to update the manual for possible republication.

In response to the authorization, your Committee began to accumulate further information to be included in the manual. It was felt that the manual should not only contain information on diagnosis and treatment, but also information on drug abuse programs. These would be not only informational programs, but also drug abuse treatment programs and projects.

Incorporating this information into the manual would allow Oklahoma physicians to have ready access to it whenever necessary. It was decided, however, not to republish the manual at this time for two reasons: a large quantity of the manual was still on hand, and there were very few substantive changes needed to update the information contained in the manual. It is anticipated that the manual will be updated during the last half of 1973, since the current supply of manuals is now nearly depleted.

As was reported to the House of Delegates last year, through a contribution from the Hoffman-LaRoche Pharmaceutical Laboratories, your committee was able to purchase a 30-minute film entitled "What Did You Take?" The film was prepared in cooperation with the New York Medical Society, and is designed to instruct physicians in the emergency treatment of overdoses of heroin, barbiturates, amphetamines, and LSD.

As soon as the film was purchased, it was immediately made available to all medical societies, hospital staffs, and other medical organizations interested in the care and treatment of the drug abusing patient.

As of the end of February, the film had

been shown nearly 60 times to different audiences, and had been almost continuously booked throughout the year.

Although the film is designed for scientific audiences, and is not really suitable for showing to the general public, on several different occasions it has been used for that very purpose. In each instance the decision to show it to a general public audience was made by a physician. Any organization interested in obtaining the film is urged to contact the OSMA office.

The proliferation of "drug abuse information programs" has concerned several members of your committee for some time. The starting of such programs seems to be the popular thing to do, and numerous well-meaning organizations have "gotten into the business." Much of the information that is being disseminated on the subject of drug abuse is not only worthless, but grossly misleading. One of the recommendations that will be made at the end of this report is that your committee be allowed to offer its services to grade or judge drug abuse information programs in an attempt to help correct some of the situations.

#### RECOMMENDATIONS:

1. It is recommended that the Committee on Alcoholism and Drug Abuse be instructed to continue its process of updating the "Drug Abuse Treatment Manual" for republication. Such new manual to contain a directory of drug abuse information programs and drug abuse treatment programs in the state.

2. It is recommended that the Committee on Alcoholism and Drug Abuse be instructed to work with other interested organizations in an attempt to coordinate drug abuse information programs throughout the state. Further, the Committee should be directed to offer to grade or judge the medical correctness of any such program.

3. All members of the OSMA should be advised that AMA drug abuse material is available through the OSMA office in Oklahoma City in very small quantities, or from the American Medical Association Office in Chicago at a slight charge. This information could be made available to local school boards, educators, and other public officials.

4. It is recommended that all county medical societies and all hospital staffs in Oklahoma be urged to request and use the film "What Did You Take?" as a program sometime during the coming year.

#### SECTION III IMMUNIZATION COMMITTEE

During the past year your Immunization Committee has worked with the Department

of Public Health to conduct, on September 10, 1972, a statewide polio immunization effort.

Last year your Committee reported to the House of Delegates that a then recent study of pre-school Oklahoma children indicated that almost one-third of that age group did not have adequate polio immunity. The state law requiring basic immunizations prior to entry in school had, to some degree, contributed to this lack of immunization earlier in the child's life. Many parents found it more convenient to wait until their child was beginning school before starting an immunization program.

Several outbreaks of polio had occurred in the southern part of the United States and in Mexico, leading to a fear that the disease might again be imported into Oklahoma. The relatively high number of susceptible children in Oklahoma and the number of potential carriers migrating from the south indicated that a statewide immunization program would be in order.

Sunday, September 10 was targeted as the day for the statewide effort — Polio Sunday.

Outstanding assistance was received from WKY Television's News Department. A short 6-minute polio documentary depicting the tragedy of recent polio cases among young children in Mexico and south Texas was handled with such sensitivity and compassion as to say, "This will not be allowed to happen in Oklahoma." Special thanks should go to Jack Ogle, WKY-TV News Director, and Bob Dotson, Pam Henry, and Dick Nelson, of his staff.

On Polio Sunday literally thousands of persons staffed hundreds of polio immunization clinics scattered throughout the state. On that one day, 51,920 children between the ages of six weeks and twelve years started their polio immunization.

Throughout the year the Committee did maintain its primary purpose, the constant monitoring of Oklahoma's immunization needs. In February, new information was released on the simultaneous administration of DPT, oral polio, measles, mumps, and rubella vaccine.

The Committee notified all OSMA physicians that it now endorsed simultaneous administration of the vaccines. The endorsement was based on newly acquired serological evidence which shows that the antibody response during simultaneous administration is comparable to those which follow administration of vaccines at different times. The Committee further recommended that measles and rubella vaccine and the third dose of trivalent oral polio vaccine be administered during the second year of life.

#### SECTION IV LABORATORY QUALITY COMMITTEE

Your committee continues to encourage

Oklahoma physicians who operate office laboratories to participate in a proficiency testing program co-sponsored by the College of American Pathologists and the American Society of Internal Medicine. The PEP Program was designed especially for physicians' offices and check samples (sent four times each year) allow 100 opportunities to evaluate the skills of laboratory personnel. Note: The program was designed as a result of a survey and work done by this committee.

Since inception Oklahoma physicians have participated in large numbers and again this year we have an enrollment in excess of 100 labs.

The results are processed by a computer and returned to the participant with an evaluation of each test. Our committee receives an anonymous copy which we use to make a group report for all participants.

We feel the program has had beneficial results on the quality of work performed in physicians' labs but would again remind Oklahoma doctors that testing only points up problems and does not solve them. Physicians should continuously exercise quality control over their laboratory activities.

#### RECOMMENDATIONS:

It is recommended that the activities of the Committee be continued.

### SECTION V

#### MATERNAL MORTALITY COMMITTEE

Your committee reviews the medical evidence connected with maternal death in Oklahoma for the purpose of verifying the cause of death, decide if the death was preventable and to determine whose responsibility the death was. The information for this review is gathered by the State Health Department by screening death certificates of women of child-bearing age. The attending physician is asked to report, and additional information is requested from all physicians involved. The reports are reviewed by a member of the committee and a commentary is prepared and presented to the committee. Each case is discussed in intimate detail (based on the information supplied) and a report written to the physicians involved.

The committee's purpose is educational but because of the confidential nature of the information it reviews, case histories can not be written for publication. We are investigating the procedures followed by the New England Journal of Medicine and hopefully will be able to publish periodic articles on the findings of the committee. We are also concerned about the potential lack of cooperation from the attending physicians if the information published is not completely anonymous.

There are 15 to 20 maternal deaths each

year in Oklahoma, a percentage compared to live births that is comparable to the national average of 2.9 per 10,000. However, it is apparent that the rate can be reduced by educating patients, physicians and others involved in pre-natal care. The implementation of a health education curriculum in the public school system would be a step in the right direction, as would the dissemination of new information on maternal care to physicians and hospitals.

For some reason there are physicians who are reluctant to respond to the committee's request for information. As stated earlier, the reports are strictly confidential and only the secretary of the committee knows the names of the physicians and patients involved. Almost thirty percent of the questionnaires on cases selected for study are not answered. We would urge the House of Delegates to impress upon the membership of OSMA the importance of this program.

In addition the committee will study the possibility of hiring a resident or medical student to research cases, (with the attending physicians) those cases where there is no response or the information is incomplete.

The committee feels that the Board of Medical-legal Investigations should expand its authority in regard to maternal deaths. We will request that a study be made of the feasibility of doing more autopsies in maternal death cases, where there was no attending physician or prior medical care.

In order to properly prepare and review cases, the committee will schedule two meetings each year instead of one as has been done in the past.

#### RECOMMENDATIONS:

1. Because of the confidential nature of the information handled by the committee we would suggest that the President of OSMA discuss his appointments to the committee with the Chairman and Secretary before they are made.

2. If legally possible the committee be permitted to publish its findings in the *OSMA Journal*.

3. That the House of Delegates encourage OSMA members to respond to the committee's request.

4. The work of the committee be continued.

#### Report of the

#### COUNCIL ON PUBLIC POLICY (APPROVED AS AMENDED)

#### Council Members

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F. D. Kalbfleisch, MD, Lawton

John E. Kauth, MD, Tulsa

Jerold D. Kethley, MD, Shawnee

James B. Eskridge, III, MD, Oklahoma City

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 David B. Lhevine, MD, Tulsa  
 C. S. Lewis, Jr., MD, Tulsa  
 Stephen J. Adelson, MD, Tulsa  
 George H. Garrison, MD, Oklahoma City  
 Harlan Thomas, MD, Tulsa  
 R. Barton Carl, MD, Oklahoma City  
 John W. Richardson, MD, Oklahoma City  
 Thomas C. Points, MD, Oklahoma City  
 Gerald L. Beasley, Jr., MD, Duncan  
 Tom S. Gafford, MD, Muskogee  
 John X. Blender, MD, Cherokee  
 Casey Truett, MD, Norman  
 Floyd T. Hubbard, MD, Henryetta  
 Edward D. Greenberger, MD, McAlester  
 Weldon K. Hanie, MD, Durant  
 M. H. Newman, MD, Shattuck  
 W. H. Porter, MD, Del City

#### *State Legislative Committee*

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 S. N. Stone, MD, Oklahoma City  
 Robert S. Ellis, MD, Oklahoma City  
 Royce C. McDougal, MD, Holdenville  
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 James B. Lockhart, MD, Tulsa  
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 John R. Smith, MD, Oklahoma City  
 Robert J. Hogue, Jr., MD, Guthrie  
 Tom Buxton, MD, Oklahoma City  
 Edgar W. Young, MD, El Reno

#### *Public Relations Committee*

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 Robert R. Hillis, MD, Lawton  
 Jake Jones, Jr., MD, Shawnee  
 M. Joe Crosthwait, MD, Midwest City  
 William L. Hughes, MD, Oklahoma City

#### *Medical Heritage Committee*

George H. Garrison, MD, Oklahoma City,  
 Chairman (& Mrs.)  
 William R. Paschal, MD, Oklahoma City  
 (& Mrs.)  
 Neil B. Kimerer, MD, Oklahoma City  
 (& Mrs.)  
 Winfred A. Showman, MD, Tulsa (& Mrs.)  
 Clinton Gallaher, MD, Shawnee (& Mrs.)  
 E. C. Mohler, MD, Ponca City (& Mrs.)  
 B. E. Blevins, MD, Midwest City (& Mrs.)  
 Harold J. Black, MD, Tulsa

### **SECTION I**

#### **MEDICAL HERITAGE COMMITTEE**

During the past year your Committee has collected a large number of early-day medical instruments, textbooks, and other medi-

cal history artifacts. Many of these will be displayed at the OSMA building in Oklahoma City.

Many items are now in storage in the OSMA building, items that have been collected over the past 2-3 years. The storage space was made available to the Committee by the OSMA Board of Trustees.

Since the Committee now has storage space, and some display space, it would like to urge all members of the Association to seek out and preserve, as best they can, the artifacts and manuscripts that best depict the medical history of this state.

The Committee originally had in mind the equipping of an early-day physician's office. However, this idea has changed in the past two years. The medical heritage of Oklahoma goes far beyond the early physician's office. It includes the development of hospitals, pharmacies, nursing schools, medical schools, and ambulance services.

Our history is replete with stories about the activities of nurses, midwives, and even "horse doctors," being the only source of medical help and responding with compassion and professionalism. These stories and the physical evidence to support them should not be allowed to perish, since they are an integral part of our medical heritage.

During a meeting in March, your committee determined that it needs to expand its efforts outside of our own professions, and offer medical heritage liaison with the Oklahoma Pharmaceutical Association, the Oklahoma Dental Association, the Oklahoma Nurses Association, the Oklahoma Hospital Association, and the Oklahoma Veterinarians Association.

In addition, the OSMA staff has been asked to determine whether or not it would be profitable to display some artifacts, papers, and manuscripts for viewing by the general public in the Oklahoma Cowboy Hall of Fame, the Oklahoma Heritage Center, and the Oklahoma Arts and Sciences Foundation.

The Committee is attempting to determine the whereabouts of a book manuscript being prepared by the late Dr. Carl Stein, MD, of Norman. It is known that just prior to his death Dr. Stein was in the process of writing a book on the history of Central State Hospital at Norman.

As leads to the location of medical artifacts and other material are made known to the Committee, the Committee intends to work with the local County Woman's Auxiliary to assist in locating and procuring the materials.

While your Committee pledges to continue its efforts to preserve Oklahoma's medical heritage, it needs the help of every physician in the state.

#### **RECOMMENDATIONS:**

1. It is recommended that your committee be instructed to enter into liaison on medical

heritage with the Oklahoma Pharmaceutical Association, the Oklahoma Dental Association, the Oklahoma Nurses Association, the Oklahoma Hospital Association, and the Oklahoma Veterinarians Association.

2. It is recommended that your Committee be directed to continue its efforts to locate possible places for displaying some artifacts for viewing by the general public. These locations could include the Cowboy Hall of Fame, Oklahoma Heritage Center, Oklahoma Arts and Sciences Foundation, and any other appropriate and safe place.

3. It is recommended that your Committee be directed to initiate an active program of seeking out the location of medical heritage material. This could take the form of letters to be prepared to go to all physicians over 60 years of age, and to all physicians known to have had members of their family in medical or medically-related practice during Oklahoma's early history. These letters could seek out the locations of photographs, manuscripts, equipment, office records, and even interesting patient records. All such leads received in this manner would be turned over to the County Society Woman's Auxiliary for follow-up.

## SECTION II PUBLIC RELATIONS COMMITTEE

The major part of your Association's Public Relations efforts are made up of continuous and on-going activities. These are such things as the Association's nine-year-old weekly newspaper health column, "A Message from Your Doctor," the legislative Doctor of the Day program, the monthly newsletter "OSMA Comment," etc. Each of these will be reported on below.

However, earlier in the year your committee met to consider a number of possible public relations projects for the Association to undertake. The OSMA staff prepared seventeen ideas for consideration. These range from simply continuing the OSMA Health Column, up to a full statewide information campaign. Although your Committee was enthusiastic about many of these ideas, it was faced with a continuing problem that is encountered in Public Relations, i.e., the cost.

The following is a brief explanation of some of the seventeen ideas that your committee felt should be pursued:

The "Good Story" Award would take the form of some token of the OSMA's appreciation to any reporter who writes a good story about medicine. In this context "Good Story" means not only stories favorable to medicine but also covers those news stories that "tell medicine's side" in a balanced reporting situation. After such an award is given out a few times, it would become known throughout the news business, and reporters would know that they could receive the award

by simply asking the medical profession to respond in the initial story about some incident. The net result would be to encourage reporters to "call us first."

Another idea considered by your Committee was the "OSMA Slide Presentation." This would be an effort to inform all members of the Association as to exactly what they are getting for their dues dollar. The presentation would be on 35 mm color slides, depicting the various functions of the Association, with a tape recorded commentary (or script for use by a live speaker), explaining how the dues dollars were being spent. The entire program would stress the "money in the pocket" aspects of belonging to the OSMA. It would point out reduced insurance premiums, group travel rate discounts, etc. Preliminary production of the slide presentation has already started in the OSMA headquarters.

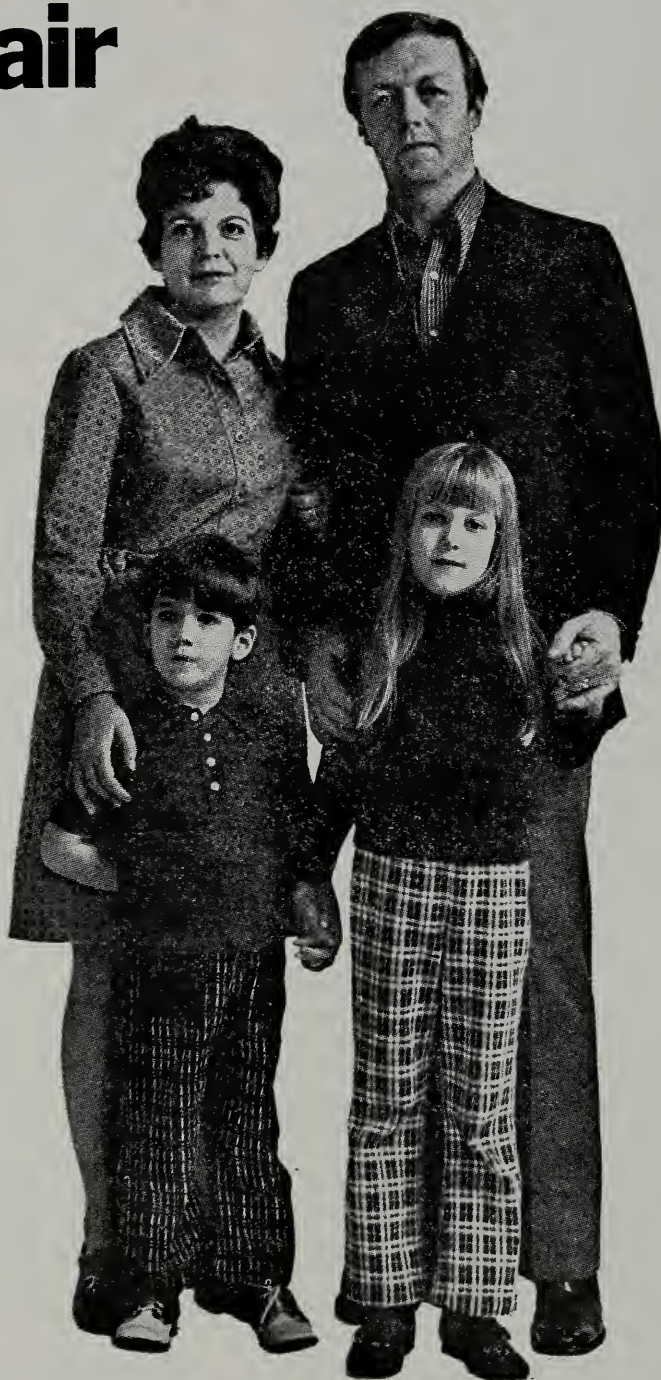
Several years ago the OSMA operated a "Speakers Bureau" consisting of forty to fifty physicians scattered throughout the state. Your committee considered the possibility of reactivating the Bureau and seeking speaking engagements — on a limited number of subjects — for civic organizations, school groups, and other large gatherings of people. To update the present Speakers Bureau it would be necessary to hold a Speakers Seminar (training program for the physicians in public speaking) and to produce a brochure describing the Speakers Bureau, for distribution to all Civic organizations, Chambers of Commerce, etc.

"Medicare Misconceptions" was a brochure published by the Illinois State Medical Society. The brochure was distributed in quantity to every medical doctor in that state. Illinois offered to allow other state medical associations to reprint the brochure in whole or in part, and to substitute their own medical society identification. This was considered by your committee, and actually authorized. However, at that time there was an omnibus Social Security bill pending before Congress, H.R. 1, that it was felt would make considerable changes in the Medicare program. Therefore, the brochure was postponed until such time as H.R. 1 became law in its final form, and its total Medicare changes were known.

Your committee also considered an "Emergency Medical Identification" campaign for the entire state. The AMA has devised a symbol to be worn by persons who have pre-existing health problems which might cause or complicate an emergency situation. The person wears the emblem on a bracelet or a neck chain, and then carries the emergency medical identification in a wallet or purse. It was envisioned that the campaign could be conducted by providing

(Continued on Page 306)

# Pinworm therapy is often a family affair



**Contraindications:** History of hypersensitivity to thiabendazole.

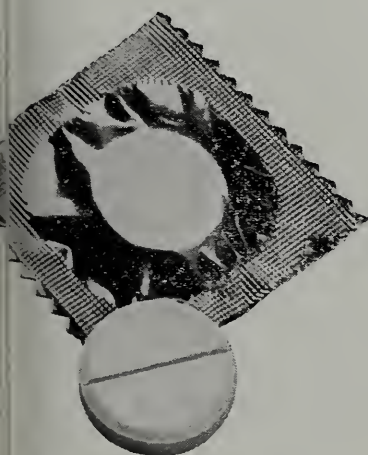
**Warnings:** If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

**Precautions:** Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction,

patients should be carefully monitored.

**Adverse Reactions:** Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of *Ascaris* in the mouth and nose. Hypersensitivity reactions

# Chewable Tablets 500 mg Mintezol® THIABENDAZOLE | MSD)



easy to take  
everyone in the family  
can keep to the  
regimen you prescribe

code: fever, facial flush, chills, conjunctival injection,  
edema, anaphylaxis, skin rashes, erythema multiforme  
(including Stevens-Johnson syndrome), and lymphadenopathy.  
indicated: Chewable tablets, containing 500 mg thiabendazole,  
boxes of 36, strip packaged, individually foil wrapped;  
suspension, containing 500 mg thiabendazole per 5 ml, in  
bottles of 120 ml.

For more detailed information, consult your MSD representa-  
tion or see full prescribing information. Merck Sharp &  
Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

## INDICATION | DOSAGE SCHEDULE

MINTEZOL® (Thiabendazole, MSD) has demonstrated effectiveness against a broad spectrum of nematode infections. Dosages are weight related. For your convenience, the information in the weight-dose chart below is included in the full prescribing information and in the 1973 edition of PDR.

*The recommended maximum daily dose of MINTEZOL is 3 g (6 tablets).*

MINTEZOL should be given after meals if possible. Dietary restriction, complementary medications, and cleansing enemas are not needed.

The usual dosage schedule for all conditions is two doses per day. The size of the dose is determined by the patient's weight.

Weight-dose chart:

WEIGHT (lb)	EACH DOSE (g)	TABLETS
25	0.25	½
50	0.5	1
75	0.75	1½
100	1.0	2
125	1.25	2½
150 & over	1.5	3

The regimen for each indication follows:

INDICATION	REGIMEN	COMMENTS
Pinworm disease	Two doses per day for 1 day. Repeat in 7 days.  This regimen is designed to reduce the risk of reinfection.	If this is not practical, give 2 doses per day for 2 successive days.
Threadworm,* large roundworm,* hookworm,* and whipworm* disease	Two doses per day for 2 successive days.	A single dose of 20 mg/lb or 50 mg/kg may be employed as an alternative schedule, but a higher incidence of side effects should be expected.
Creeping eruption	Two doses per day for 2 successive days.	If active lesions are still present 2 days after completion of therapy, a second course is recommended.
Symptoms of trichinosis* during the invasive phase of the disease	Two doses per day for 2 to 4 successive days according to the response of the patient.	The optimal dosage for the treatment of trichinosis has not been established.

\*Clinical experience with thiabendazole for treatment of each of these conditions in children weighing less than 30 lb has been limited.

(Continued from page 303)

physicians' offices, hospitals, clinics, and drugstores with a quantity of pamphlets, posters, and medical identification cards to be distributed.

At first, the Emergency Medical Identification Campaign appears very attractive. However, this particular aspect of public health information has become highly commercialized. Any such program would have to be handled with great care.

Regarding the Public Relations Committee's on-going projects, the following is a report on each:

1. The Association's nine-year-old weekly health column, "A Message from Your Doctor," is distributed to over 200 state newspapers each week. Many of these papers use it on a continuing basis, while others use it only when the subject matter is of interest to them. In any given week it will probably be printed in thirty to forty newspapers. If your Association found it necessary to purchase the amount of newspaper space devoted to the health column each year, the cost would be exceedingly high. The column is produced solely by the OSMA Staff.

2. Your Committee is continuing its liaison with the OSMA Legislative Committee, as regards the "Legislative Doctor of the Day" program. Before each doctor serves his volunteer day, a personalized news story is sent to his home town announcing the fact that he will be out of his office on a particular day to serve the state Legislators. The stories are released a week prior to his day of service, and serve a two-fold purpose by (a) informing the doctor's patients that he will be out of his office, and (b) creating a good public relations image for the Association.

3. The Association fills numerous requests from newspapers, radio and TV stations for medical information for their own writers and reporters. In addition, numerous specialty releases were made during the year.

4. Your Association's monthly newsletter, *OSMA News*, was changed during the past year to a mimeographed newsletter format, entitled *OSMA Comment*. This change was made after being announced at last year's House of Delegates meeting.

The original purpose of the newsletter was to be a "fast" method of delivering news of interest to OSMA members between issues of *The Journal*. Unfortunately, due to the type of printing being used, the newsletters could not be produced rapidly and were not fulfilling the function envisioned for them.

Since the switchover to the mimeographed newsletter form, the *OSMA Comment* has received numerous compliments from physician members.

5. Preliminary discussions were held

over a year ago on the subject of changing the "Medical News Practices" Code that was adopted by the OSMA in 1966, and also by the Oklahoma Press Association and the Oklahoma Hospital Association. The object was not to rewrite the code as much as it was to organize a condensed guideline to be printed in a compact form for distribution to all hospitals and newspapers in the state.

A special meeting with representatives of the OSMA, the Oklahoma Hospital Association and the Oklahoma Press Association was held in October to discuss the project. Although the outcome of this meeting was inconclusive, the general feeling was that perhaps it would be best to rewrite the press code into a more workable form. Publication of a condensed guideline offers numerous difficulties, in view of the fact that there appear to be some inconsistencies in the Code itself.

Your Public Relations Committee will continue to work with other interested organizations on this area of concern.

6. At the request of a local theater owner, the OSMA worked with the American Medical Association in having one of the AMA's television commercials on the subject of medicine and religion produced for distribution to movie theaters. This called for changing the commercial over from 16 mm to 35 mm film.

The actual number of films distributed is unknown. However, it is your Committee's understanding that one theater chain offered to run the film in over 200 theaters.

7. During the past year a new book, *Hazardous to Your Health*, was published as an in-depth look at the so-called health care crisis. Marvin Henry Edwards, an Oklahoma attorney and editor of *Private Practice* magazine, is author of the book, and carefully evaluates the many charges being leveled at American Medicine by proponents of the national health insurance schemes.

At the request of OSMA President Stanley R. McCampbell, MD, a copy of this book was sent to each member of Oklahoma's Congressional delegation, compliments of the OSMA.

#### RECOMMENDATIONS:

1. It is recommended that your committee be directed to implement the "Good Story" award.

2. It is recommended that after the OSMA Slide Presentation is completed, all county medical societies be urged to use the presentation at one of their regular meetings.

### SECTION III STATE LEGISLATIVE COMMITTEE

As directed by the House of Delegates last session, the size of the legislative committee has been reduced to 13 members. We have met regularly at two week intervals during the session. The committee has reviewed 63

bills introduced during the session that affect medicine. We have taken positions on 31. We have testified countless times and have informed members of the legislature about our position on bills through a new "Legislative Backgrounder" (A copy is attached). In addition, the committee has given each member of the legislature a roster of the legislative committee members' names with office and home phone numbers. Physicians have visited the capitol at our request to lobby on specific bills. We have been accessible to the Legislature.

The "Doctor of the Day" program has been continued and is still one of our best "public relations" efforts with the legislature.

Your committee has worked diligently and has been effective. We have successfully held bills in committee which we have opposed and have advanced bills we have supported. It appears that one bill will pass that we opposed vigorously (See House Bill 1022 listed later in the report). Considering the large volume of legislation the committee considers, this is not a disaster.

The House should be aware that there are few organizations that monitor state legislation as does this association. Most are interested only in bills that offer financial reward or loss. Few are interested in the welfare of the public. The known "conservative" interests apparently have "given up" and there is little lobbying for just "Good Government." A list of the more important bills we have considered and their current status in the legislature is attached to this report.

The committee wishes to report at length on several bills that created considerable controversy:

#### *Senate Bill 114 — Stansberry*

Senator Stansberry discussed with the association office the possibility of introducing legislation that would provide an aggrieved physician with an appeals mechanism outside District Court when dismissed from a hospital staff or denied privileges by a hospital Board of Control. It was the opinion of the staff that such a law would not be looked upon with disfavor by association members. When the bill was introduced the appeals procedure gave jurisdiction to the State Board of Medical Examiners, but also provided that the physician could continue to practice in the hospital while his appeal was pending. Since the legislation affected both MD's and DO's it was decided by association officers and staff that it was unacceptable. The bill was rewritten to vest the hearing authority in the State Board of Health—a nine member Board which had (at the time) 5 MD's, 1 DO, 1 Dentist, 1 Hospital Administrator and 1 Layman. The Legislative Committee voted to support the bill in that form. In the meantime the Hospital Association mustered

a considerable lobby against the bill. Although the committee distributed the new bill to the Chiefs of Staff of all Oklahoma Hospitals and the Legislative Liaison Council, there was more opposition from our membership than support. Most of the comments we received indicated that the appeals procedures provided by the hospital by-laws were sufficient. In the meantime, two bills were introduced that would have changed the composition of the State Board of Health and conceivably eliminate all physicians on the Board.

When the bill was first voted on in the Senate it lost by 1 vote, through our efforts it was reconsidered and subsequently passed. It was referred to the House and for the reasons mentioned above is being held in a House committee and probably will not be acted on this session.

The Legislative committee needs an expression of the House of Delegates in regard to this matter. Three alternatives are proposed:

1. Nothing be changed and individual hospitals and medical staffs continue to handle their own affairs.

2. A law be drafted and passed similar to SB 114 vesting authority in a State Board or Agency.

3. The association request a joint committee with the Hospital Association be formed to hear physician and hospital grievances.

#### *Senate Bill 139 — Breckinridge*

The Supreme Court rulings in the Doe vs. Bolton and the Roe vs. Wade cases have had the effect of repealing Oklahoma's laws that prohibit abortions. Several bills have been introduced that would establish guidelines for performing an abortion. Senate Bill 139 has passed the Senate and is now in the House of Representatives. It essentially provides:

- a. The decision for performing an abortion within 12 weeks of the commencement of pregnancy is a matter for the physician and patient.

- b. After 12 weeks and before viability (24 week maximum) an abortion may be performed by a physician and surgeon possessing a high degree of skill and learning in the fields of surgery or obstetrics and in a hospital.

- c. After viability, in a hospital and "... only when necessary to preserve the life, as opposed to merely preserving the health, of the pregnant woman."

- d. There must be written consent from husband, guardian or parent or certification from two physicians. There must have been prior counseling.

- e. There is a "good conscious clause."

- f. Penalty for illegal abortions is \$10,000 or 20 years.

There is a great reticence in the legislature against voting *for* an abortion bill and at the writing of this report, its outcome is unpredictable.

Although the association has a survey indicating its members' feelings on abortion (see Planning Committee Report), we have only offered advice and have not taken a position on the abortion bills. If the House wishes the committee to do otherwise it should so instruct us.

*Senate Bill 221 — Miller*

For several years we have discussed the possibility of repealing Oklahoma's Basic Science Act. The law was enacted in 1937 to assure the public that practitioners of the healing arts seeking licensure in Oklahoma have all achieved a level of competence in the Basic Sciences. Because of reciprocity arrangements made by the various licensure Boards few people are taking the basic science exam. Further, all Boards are accepting National Examinations as evidence of competence. A study of the number of persons licensed compared to the number examined indicates that only 1 out of 6 takes the basic science exam, and probably he is a graduate of the OU Medical School who wants to practice in Oklahoma. Hence, we are discriminating against our own. The bill has passed the Senate and the House and will be signed by the Governor before the convention ends.

*House Bill 1020 — Sparkman*

Because of the alarming rise in teenage pregnancies and the liberal sex attitudes of many minors, there have been efforts to pass legislation permitting physicians to prescribe and administer contraceptives to sexually active minors without parental consent. Such was the subject of the proposed law. Because of the survey results on this subject (see Planning Committee Report) the committee took no position but did provide the legislature with the results of our survey. If the House wishes us to do otherwise we should be so instructed.

*House Bill 1022 — York*

For the past 17 years legislation has been introduced to permit an injured worker covered by workmen's compensation insurance to choose his own physician. In order to get the bill passed, the authors this year combined a group of vested interest organizations—a copy of the bill and our arguments are attached. If it has not already passed by the time this report is read, it will be unless significant pressure can be brought on the Senators. Every physician who thinks this is bad legislation should contact his senator. Your committee has spent innumerable hours trying to defeat this bill.

*House Bill 1049 — Miskelly*

This is the general appropriation bill for Higher Education. It includes the appropriation for the Medical School. The committee has attempted to have a special section included in the bill appropriating \$301,000 to start the Medical School Branch for Tulsa. There have been questions about the wisdom of starting a new school when the existing school is having such severe financial difficulties.

Last session the legislature passed bills authorizing the Regents to open schools of Osteopathy and Medicine in Tulsa. The opinion of the legislature is that the schools would produce more primary care physicians for Oklahoma. There is a general frustration in state government over the inability of the Medical School to produce General Practitioners.

Since 1969 the Tulsa medical community has made orderly progress in creating the necessary elements for a medical school. Apparently, there will never be a "good time" to start the program as far as finances are concerned and the Tulsa medical education program has reached a critical point, and will begin to deteriorate if the school is not started.

The committee has thus far not been successful in getting a special legislative intent section put in this bill but has assurances from legislative leaders that the program will be funded.

*House Bill 1142 — York*

This legislation amends the medical practice act to broaden the powers of the State Board of Medical Examiners. Heretofore, the Board has not been able to discipline a physician for wrongdoing until he had exhausted his appeals in Court. The new law would permit the Board to convene a hearing and suspend a physician's license if they felt it appropriate. We have also "cleaned up" some antiquated language that was in the statutes.

*House Bill 1316 — Davis*

The State Board of Health, by law, is composed of nine members, four of which must be physicians. There have been several attempts in the past to change the composition and name other professionals to the Board. This bill could have eliminated all the physician members. The purpose was to increase the size to eleven members and add environmental interests. The responsibilities of the Health Department have changed sufficiently over the past years to justify representation from environmental groups (40% of the department's activities are in the area of environmental services); however, the bill as introduced was poor judgment and has been killed for this session.

#### *House Bill 1340 — Oakes*

At the present time, Oklahoma has no law prohibiting or controlling the use of acupuncture. The Board of Medical Examiners has adopted a rule assuming jurisdiction but as yet it has not been tested. This bill would have limited the practice to physicians but because of some technical errors and the opposition of Chiropractors the bill was held in committee. The legislative committee has asked the Board of Medical Examiners to seek an Attorney General's opinion or test their rule. The outcome of these actions will determine whether the bill is pushed next session. It should be noted that in Nevada a separate board was established to approve schools and license practitioners of acupuncture.

#### *House Bill 1387 — Oakes*

Two years ago the House of Delegates passed a resolution requesting this committee to introduce legislation requiring the labeling of drugs sold and dispensed by a pharmacist. HB 1387 would require a pharmacist to put on the label the generic or trade name of the drug if the prescriber so states.

#### *House Bill 1390 — Nance*

This bill would have made it a felony for a physician to refuse to perform an examination on an alleged rape victim, when the examination was requested by a police officer. The proposal was introduced as a result of publicity surrounding an incident in Oklahoma County and the inability to secure an examination. We assumed the problem was local but when the bill was heard by the committee testimony indicated it was of a broader nature. The association staff is still working out details with law enforcement officials, hospital administrators, city officials and others, trying to implement a procedure that will be acceptable to all.

The best solution is a city-county physician charged with and paid for doing these examinations. We understand that both Oklahoma and Tulsa counties are pursuing this objective. However, until more satisfactory arrangements are made it is the committee's recommendation that physicians cooperate with local officials in seeing that these examinations are performed.

#### **OTHER BILLS:**

*Senate Bill 002* — Would have resurrected the old "coroner system" for investigating mysterious deaths. The bill is dormant for this session.

*Senate Bill 115* — Establishing a special revolving fund for accounts of special state boards and commissions. Changes the physician practice plan at the medical school and is in the joint conference committee.

*Senate Bill 138* — Provides that contributory negligence can no longer be a total de-

fense in personal injury cases. The bill has passed both houses.

*Senate Bill 168* — Established a new occupational safety and health act and created a board. The bill is dormant for this session.

*Senate Bill 213* — Creating the office of State Health Planning and would have made the State Health Planning Office an official agency of the state and could have broad authority. Is dormant for this session.

*Senate Bill 227* — Licensing act for Speech Pathologists and Audiologists. Creates a board with physician representation. Has been passed by the Senate and is on general order in the House.

*Senate Bill 245* — Would require that hospitals admit patients regardless of their ability to pay. The bill is dormant for this session.

*Senate Bill 267* — Would change the composition of the State Board of Health and could eliminate the physician on the board. Dormant for this session.

*Senate Bill 299* — Reduces the license tag fee required for an ambulance. Passed the Senate and is on general order in the House.

*Senate Bill 316* — Transfers Children's Hospital to the Department of Public Welfare. Passed both houses.

*Senate Bill 325* — Creates a new governess for University Hospital. Passed the Senate and is in the House.

*Senate Bill 326* — Authorizes the Board of Examiners of Osteopathic and Medicine to certify physicians in prenatal and postnatal care. The bill is dormant for this session.

#### **HOUSE BILLS**

*House Bill 1032* — Would have permitted a person injured but covered under the workmen's compensation act to maintain an action against a physician if his injury was compounded as a result of the medical treatment. The bill is dormant for this session.

*House Bill 1058* — Appropriates \$100,000 for the Medical Education Loan and Scholarship Fund. In Joint Conference Committee.

*House Bill 1092* — Exempts prescription drugs from sales tax. The bill is dormant for this session.

*House Bill 1188* — Permits an injured employee covered by workmen's compensation to select his own physician (dormant for this session); A similar bill passed, see report on HB 1022.

*House Bill 1198* — Authorizes the State Board of Medical Examiners to give the FLEX Examination. Passed the House and is in a Senate Committee.

*House Bill 1207* — Would permit the introduction of learned treatises, textbooks, etc. as evidence in a civil action. It is dormant for this session.

*House Bill 1295* — Establishes guide lines

for the performing of an abortion. The bill is dormant for this session.

*House Bill 1369*—This is a good conscious clause that would protect the physician or hospital from performing an abortion. It has been passed by the House and is in a Senate committee.

*House Bill 1376*—Creates a licensing board of Hearing Aid Dealers and Fitters. The board has physician representation. Passed the House and is in the Senate.

# RECOMMENDATIONS:

1. It is again further recommended by the Legislative Committee that sufficient additional financial support be provided the medical association staff to provide what we consider to be help for our lobbyist in the areas of vital need. We would anticipate the Board of Trustees would need to consider all possible sources of these additional funds—dues increase if necessary. We would recommend that the OSMA staff determine how best to utilize additional financial support.

We are of the opinion that it is no longer possible for one man to attend to our lobbying activities when our association is concerned with and/or affected by the outcome in excess of 60 pieces of legislation each session. This number continues to increase. The groups that regularly oppose us spend thousands of dollars and at times have two people employed full time lobbying against us.

2. It is recommended that the activities of the committee be continued and that other medical organizations such as the Oklahoma Academy of Family Physicians and local county medical societies be asked to assist the association in its legislative efforts.

3. It is recommended that the Legislative Committee schedule a meeting with the Board of Trustees sometime in the early fall (Sept.) to discuss the association's legislative program.

MEMORANDUM TO: Members of the Oklahoma Senate

FROM: R. Barton Carl, MD, Chairman, Legislative Committee

SUBJECT: HB 1022

We have carefully studied this proposed legislation and listened to the arguments of Industry and Labor about the merits of "Free Choice of Physician" legislation. Organized medicine has always held the position that a person has the right to choose his own doctor. However, in occupational health we have stated that the "... injured worker is entitled to the best medical treatment available in the shortest period of time." These two policies tend to conflict when we discuss workmen's compensation cases.

We feel the employer has a moral and le-

gal responsibility to provide prompt and proper treatment by an experienced physician who is willing to treat such cases. In fact, the federal Occupational Safety and Health Act clearly requires this of an employer on a 24 hour basis. Emergency care is only part of the treatment. It is important that the patient be healed, reassured, rehabilitated and returned to gainful employment. The treating physician must not only care for the injured worker, but he must be familiar with the environment to which he is returning the employee. It has been our experience in visiting with physicians who care for the bulk of workmen's compensation cases, that the physicians involved have more interest in the patient's welfare than some of those who are in support of this legislation.

The majority of workmen's compensation cases are of a traumatic nature; in fact, 74% of the 8,386 injuries sustained in 1971 are in this category. (1971 Oklahoma Industrial Court Report). Limited practitioners defined in this bill are probably not adequately trained to handle these injuries.

In addition, if the bill passes, other questions are raised: Could an injured employee decide that he wanted to be treated at Mayo's or the Cleveland Clinic? Could the Industrial Court Judges ask for a change of physician if in their opinion they thought it would be in the best interest of the patient?

## STATE OF OKLAHOMA

1st Session of the 34th Legislature (1973)  
Engrossed HB 1022

BY: Cole, York, Monks, Hammons and Parris of the House and Stipe and Payne of the Senate

AN ACT RELATING TO WORKMEN'S COMPENSATION; AMENDING 85 O.S. 1971, §14, REQUIRING EMPLOYER TO PROVIDE FOR MEDICAL ATTENTION FOR INJURED EMPLOYEES; PROVIDING FOR REPORTS OF EXAMINATIONS; PERMITTING INJURED EMPLOYEES TO SELECT THEIR OWN DOCTOR UNDER CERTAIN CIRCUMSTANCES; AUTHORIZING CHANGING PHYSICIANS; AND AUTHORIZING ENTRY OF ORDERS TO PAY FOR PHYSICIANS' SERVICES, MEDICINES, SUPPLIES AND APPARATUS.

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

SECTION 1. 85 O.S. 1971, §14, is amended to read as follows:

§14. The employer shall promptly provide for an injured employee such medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches, and apparatus as may be necessary after the injury. The attending physician shall supply the injured employee and the employer with a full examining report of injuries found at

the time of examination and proposed treatment, this report to be supplied within seven (7) days after the examination; also, at the conclusion of the treatment the attending physician shall supply a full report of his treatment to the employer of the injured employee.

The employer's selected physician shall have the right to examine the injured employee. A report of such examination shall be furnished the injured employee within seven (7) days after such examination.

If the employer fails or neglects to provide the same within a reasonable time after knowledge of the injury, the injured employee, during the period of such neglect or failure, may do so at the expense of the employer; provided, however, that the injured employee, or another in his behalf, may obtain emergency treatment at the expense of the employer where such emergency treatment is not provided by the employer. Notwithstanding any other provision of this section, the employee may select a physician of his choice to render necessary medical treatment, at the expense of the employer; provided, however, that the attending physician so selected by the employee shall notify the employer and/or the insurance carrier within a reasonable time not to exceed seven (7) days after examination or treatment was first rendered. The term physician as used in this section shall mean any person licensed in Oklahoma as a Medical Doctor, Chiropractor, Chiropodist, Dentist, Osteopathic Physician or Optometrist. If such injured employee should become deceased, whether or not he has filed a claim, such fact shall not affect liability for medical attention previously rendered, and any person or persons entitled to such benefits may enforce charges therefor as though such employee had survived. Whoever renders medical, surgical or other attendance or treatment, nurse and hospital service, medicine, crutches and apparatus, or emergency treatment, shall submit the reasonableness of the charges to the State Industrial Court for its approval and such charges shall be limited to such charges as prevail in the same community for similar treatment of like injured person, and when so approved shall be enforceable by the Court in the same manner as provided in this act for the enforcement of compensation payments; provided, however, that the foregoing provision, relating to approval and enforcement of such charges, shall not apply where a written contract exists between the employer or insurance carrier and the person who renders such medical, surgical or other attendance or treatment, nurse and hospital services, or furnishes medicine, crutches or apparatus. The Court shall have authority on application of employee or employer or its insurance carrier to order a change

of physicians at the expense of the employer when, in its judgment, such change is desirable or necessary; provided, the employer shall not be liable to make any of the payments provided for in this section, in case of contest of liability, where the Court shall decide that the injury does not come within the terms of this act. The Industrial Court, at the time it renders judgment for workmen's compensation, including orders entered approving joint petitions, shall enter a judgment for the payment of medical, surgical or other physician's attendance or treatment, supplies, medicine and apparatus.

Report of the  
COUNCIL ON  
SOCIOECONOMIC ACTIVITIES  
(APPROVED)

*Council Members*

Arnold G. Nelson, MD, Midwest City, Chairman  
Roger J. Reid, MD, Ardmore  
John W. Richardson, MD, Oklahoma City  
James P. Bell, MD, Oklahoma City  
Arthur E. Schmidt, MD, Oklahoma City  
Charles Bodine, MD, Oklahoma City  
E. N. Lubin, MD, Tulsa  
Scott Hendren, MD, Oklahoma City  
Thurman Shuller, MD, McAlester  
Howard B. Keith, MD, Shattuck  
Robert Sukman, MD, Oklahoma City  
Ann K. Kent, MD, Muskogee  
Walter E. Brown, MD, Tulsa  
Richard W. Loy, MD, Pawhuska  
Harold Stout, MD, Waurika

*Occupational Medicine Committee*

Robert R. Dugan, MD, Oklahoma City, Chairman  
R. L. Lembke, MD, Ponca City  
Samuel C. Jack, MD, Lawton  
William A. Miller, MD, Oklahoma City  
C. J. Sternhagen, MD, Oklahoma City  
Kieffer D. Davis, MD, Bartlesville  
James D. Green, MD, Cushing  
Casper H. Smith, MD, Duncan  
Jack L. Richardson, MD, Tulsa  
J. R. Drumwright, MD, Bartlesville  
Robert G. Perryman, MD, Tulsa  
W. Frank Phelps, MD, Tulsa  
Mark A. Everett, MD, Oklahoma City  
James B. Wise, MD, Oklahoma City  
W. W. Schottstaedt, MD, Oklahoma City  
Robert J. Rutledge, MD, Oklahoma City  
Harry F. Singleton, MD, Oklahoma City  
James G. Moore, MD, Tulsa

*Prepaid Medical Care Committee*

Charles Bodine, MD, Oklahoma City, Chairman  
William L. Parry, MD, Oklahoma City  
Herbert Kent, MD, Oklahoma City  
William J. Forrest, MD, Oklahoma City

## SECTION I THE COUNCIL

Richard W. Loy, MD, Pawhuska  
Robert M. Shepard, Jr., MD, Tulsa  
Joe E. Tyler, MD, Tulsa  
John L. Ritan, MD, Tulsa  
Edward L. Moore, MD, Tulsa  
Neil B. Kimerer, MD, Oklahoma City  
Emil E. Palik, MD, Tulsa  
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Richard G. Williams, MD, Tulsa  
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### *Governmental Relations Committee*

Scott Hendren, MD, Oklahoma City, Chairman

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George E. Merkley, MD, Boise City  
Ross Deputy, MD, Clinton  
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John A. Schilling, MD, Oklahoma City  
Rayburne W. Goen, MD, Tulsa  
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Jack D. Fetzner, MD, Woodward  
Robert Sukman, MD, Oklahoma City  
James W. Owen, Jr., MD, Bartlesville  
Mark R. Johnson, MD, Oklahoma City  
Jack H. Reynolds, MD, Muskogee  
Edward K. Norfleet, MD, Tulsa

### *Peer Review Committee (Sub-Committee A)*

Howard B. Keith, MD, Shattuck, Chairman (General)

G. Rainey Williams, MD, Oklahoma City, Chairman

Leonard H. Brown, MD, Tulsa  
John W. Richardson, MD, Oklahoma City  
Ray V. McIntyre, MD, Kingfisher  
W. R. Smith, MD, Enid  
Charles R. Gibson, MD, Chickasha  
Roger Haglund, MD, Tulsa  
D. E. Wilson, MD, Lawton  
Frank L. Adelman, MD, Enid  
William R. McShane, MD, Tulsa  
Jack L. Richardson, MD, Tulsa  
Maurice Gephardt, MD, Muskogee  
Fred Switzer, MD, McAlester

### *Peer Review Committee (Sub-Committee B)*

Edward L. Moore, MD, Tulsa, Chairman  
David D. Rose, MD, Ardmore  
Richard M. Taliaferro, MD, Ada  
Harold W. Calhoon, MD, Tulsa  
Art Schmidt, MD, Oklahoma City  
William J. Forrest, MD, Oklahoma City  
Robert J. Hogue, Jr., MD, Guthrie  
S. Fulton Tompkins, MD, Oklahoma City  
Alfred H. Bungardt, MD, Tulsa  
Homer D. Hardy, MD, Tulsa  
Thomas Henley, MD, Oklahoma City  
B. C. Chatham, MD, Chickasha  
Neil B. Kimerer, MD, Oklahoma City  
Thomas E. Acers, MD, Oklahoma City

The Council has been assisted throughout the year by able committees operating under its jurisdiction, and the Council *per se* has had no matters referred to it which required its direct involvement.

## SECTION II OCCUPATIONAL MEDICINE COMMITTEE

This committee has been fairly inactive for the past two years since most of the legislation and regulations affecting industrial and occupational health have emanated from the National Congress and the Department of Labor. The Occupational Health and Safety Act (OSHA) passed in 1970 supplanted most state laws dealing with occupational safety and health. The full impact of OSHA is just now beginning to be felt by organized medicine and industry. Some of the regulations written have been extremely expensive and to some extent exceeded what was necessary for both good health and safety practices. New regulations are being issued periodically and your chairman monitors these with representatives of industry.

There are state laws being introduced to conform Oklahoma's Workmen's Compensation Act with federal laws. In some cases the legislature is attempting to expand the law beyond the national requirements — such is the case with Engrossed House Bill 1022, which permits the injured employee to select a physician of his choice and then defines physician as any "person licensed in Oklahoma as an MD, DC, DSC, DDS, DO, or OD." Your committee chairman has been in close contact with OSMA's legislative committee on this bill, hopefully it will be significantly altered or defeated.

In an effort to deter HB 1022 the "Medical Panel" bill introduced in previous sessions was recommended to the House of Representatives. It was our contention that by using impartial medical examiners for a few years, sufficient data could be gathered that would clearly point up deficiencies in the existing system. Unfortunately, as in the past, the bill was not seriously considered which might make one wonder about the seriousness of those who are trying to solve the "problems."

Other state legislation has been introduced to set new Occupational Health and Safety Standards, however, because of disagreements between labor and industry it will not be acted upon this session.

Information has been requested from AMA's Department on Occupational Medicine regarding the type of first aid stations recommended for various sizes and types of industries, if appropriate the committee will

hold meetings with industrial leaders to discuss these and other problems.

Last year the National Commission on State Workmen's Compensation Laws issued a lengthy report with recommendations for changes in state laws — it is anticipated that your committee will be involved in the implementation of many of these recommendations. A lengthy chapter is devoted to medical benefits.

#### RECOMMENDATIONS:

It is recommended that the committee's activities be continued.

#### SECTION III PEER REVIEW COMMITTEE

Since July 1, 1966, your Association has maintained a fee review mechanism to adjudicate claims involving health care programs which pay physicians according to "usual, customary and reasonable" (UCR) fees.

The structure and organization of the Committee was changed in July, 1969, at the direction of the OSMA Board of Trustees, in order to accelerate a more rapid handling of cases. At that time two subcommittees of ten members each, plus a chairman, were organized to meet on alternate months.

Last year, the House of Delegates authorized the Committee to change its name from "Medical Insurance Review" to "Peer Review."

From July 1, 1966, through March 4, 1973, the Committee had only reviewed 644 cases. However, in the past year the number has been increasing, and from May, 1972 through March, 1973, the Committee had reviewed 153 cases, nearly 25% of the 5½ year total.

It should be understood that the term "cases" as used in this report does not necessarily mean that the Committee considered only a single claim. In many cases numerous claims were involved. In one case alone, the claims totaled over \$20,000, and it is not uncommon for a single case to involve twenty to thirty claims.

When a case is properly filed and fully documented, one of the two subcommittees can make a determination in as short a time as 16 to 18 days, up to a maximum of 45 days. When the established system is followed, your peer review committee believes that questioned cases can be adequately and rapidly resolved.

#### VERY IMPORTANT! (APPROVED AS AMENDED)

Dear Doctor:

The enclosed explanation of Public Law 92-603 and the ballot card are being sent to every OSMA member in an attempt by your House of Delegates to better represent you in dealing with the imminent issue of a federally-funded peer review program.

It is a complex and significant law. OSMA

representatives have just completed regional meetings throughout the state in an effort to discuss the law and its ramifications with the membership . . . 1,200 physicians attended these meetings.

Now we need your opinion. The summary of the problem will only take a few minutes reading time . . . please read it now and send us your views today. Thanks.

Sincerely,  
Roger Reid, MD, Speaker  
House of Delegates

P.S. THE ENCLOSED BALLOT CARD  
MUST BE RETURN BY\_\_\_\_\_.

#### IMPORTANT BALLOT!

OSMA OPINION POLL ON  
PARTICIPATION OR NON-PARTICIPATION  
IN FEDERALIZED PEER REVIEW  
BALLOT MUST BE POSTMARKED  
BEFORE MAY 15, 1973!

#### THE LAW

Public Law 92-603 establishes "Professional Standards Review Organizations" (PSRO's) to review all claims for health services provided for Medicare and Medicaid beneficiaries. The law is effective January 1, 1974.

PSRO's are to be designated for all areas of the U.S. by the Secretary of Health, Education and Welfare by January 1st. A PSRO must represent an area encompassing a minimum of 300 physicians, and participation must be open to all licensed MD's and DO's regardless of medical society membership.

For the first two years of the program, physician groups will receive priority to be designated as PSRO's for their areas . . . only organizations representing more than 50% of the physician population may be designated as PSRO's during this period. Before signing a contract, the Secretary of HEW must notify all physicians in the area of his choice of PSRO, and if 10% object he must conduct a referendum and achieve more than 50% participation before the contract can be signed with the applicant organization. If the 50% approval is not obtained, the Secretary cannot establish a PSRO until January 1, 1976, at which time he can designate any public or non-profit organization regardless of physician approval.

Federally-financed PSRO's will operate computerized peer review systems to inspect all Medicare and Medicaid claims filed by physicians and other providers. No claim may be paid unless: (1) The services are found to be medically necessary; (2) the quality of health services provided are determined to meet acceptable standards; and (3) the choice of health care facility is deemed to be appropriate (economical).

Initially the PSRO program will only involve services rendered in institutions, but the plan is to eventually extend the PSRO

jurisdiction to outpatient care and to establish a system for prior approval of all elective admissions.

"Norms" or parameters will be developed for computer programming. These norms will cover average length of stay as related to diagnosis and other factors, quality of services, and whether the patient could have been cared for in a less costly facility. Claims falling outside the norms will be rejected by the computer and will be subject to inspection by physician review teams. The PSRO will not have authority over physicians' fees (this will remain with the Medicare and Medicaid carriers) except through disallowing services or granting justifiable extensions of care beyond the established norms.

If a PSRO disapproves of services provided, it must notify the claims-paying agency, the practitioner and the patient. The physician is not civilly liable for following PSRO norms except where malice or gross neglect are involved.

It is possible for there to be only one PSRO for a state. However, if there are three or more PSRO's in a state, then there must be a "Statewide Professional Standards Review Council" comprised of one physician from each PSRO, two physicians designated by the medical association, two physicians designated by the state hospital association, two laymen appointed by the Secretary of HEW and two laymen selected by the Governor. The council will coordinate all PSRO's in the state and will report violators and recommend action to the Secretary of HEW.

Violators of the PSRO law and regulations may be banned from participation in government-funded programs or, if they wish to be reinstated, they may be fined the lesser of \$5,000 or the cost of improper services.

#### OKLAHOMA FOUNDATION FOR PEER REVIEW

In January, 1972, the OSMA House of Delegates established the Oklahoma Foundation for Peer Review in anticipation of P.L. 92-603. As a non-profit foundation operating semi-independently of the OSMA, it would probably qualify as a PSRO.

The Board of Trustees of the OSMA elects the Board of Directors of the Foundation. Distribution of the board members is based on physician population . . . four from Oklahoma County, three from Tulsa County, and five from the remainder of the state. The OSMA president, president-elect and board chairman are ex-officio members. The foundation has never been activated.

#### QUESTION: SHOULD THE OSMA STAND AGAINST PARTICIPATION IN PSRO?

Advocates of this position believe that there

is no real need for PSRO . . . that PSRO is designed to gain control of the profession in preparation for National Health Insurance . . . that oppressive federal control will adversely affect the quality of medicine and will stifle medical progress . . . that the OSMA and its foundation should not be in a position to be blamed for the consequences of PSRO . . . that willful participation in PSRO by the OSMA and its foundation would be divisive and would lead to the destruction of a unified profession.

Unless the law is changed, non-participation would not be difficult to achieve prior to January 1, 1976, since no PSRO could be formed without the compliance of more than half of the state's doctors. After January 1, 1976, however, the Secretary of HEW would be free to establish a program with or without the cooperation of organized medicine. Advocates of non-participation believe that non-participation could still be successful (in 1976 and beyond) since peer review of medical services can only be carried out by cooperating physicians, and a substantial number of non-participating doctors would make PSRO unworkable. Advocates of non-participation believe that a professionally acceptable alternative to the PSRO law could be achieved through an immediate and concerted rejection of the program at this time.

#### QUESTION: SHOULD THE OSMA BECOME INVOLVED IN PSRO?

Physicians who take this position feel that non-participation in a federal law is not a realistic approach to the problem, especially since most state medical associations are resigned to a role of constructive participation. Such advocates of participation are not admirers of the legislation, but they don't feel that the program can be stopped or altered through its immediate rejection by one or two states. Moreover, they think that non-participation at the outset would present organized medicine with an impossible public relations problem. In addition, they feel that economic penalties will be exacted against non-participating physicians to the extent that a unified position of non-participation could not be sustained for any length of time. Participation, they say, will at least provide the opportunity for practicing physicians to become involved at the outset and to act in good faith to carry out the announced intent of the law . . . to improve the quality of health services. They feel that physicians are uniquely qualified to appraise the PSRO operation and to guide it from the inside in a reasonable and perhaps beneficial direction . . . but to withdraw before the program begins is a risky attitude to take toward a federal law, and would only place the program in the hands of non-professionals. Physicians who are advocates of participation today say they will be advocates of non-participation tomorrow.

row if PSRO becomes a liability rather than an asset toward improving the quality of medical care.

BALLOT

(Mail by \_\_\_\_\_)  
The Oklahoma Foundation for Peer Review should be activated to undertake preliminary investigation of the PSRO and the forthcoming regulations, with the final decision to apply for PSRO involvement remaining vested with the OSMA House of Delegates.  
Yes \_\_\_\_\_ No \_\_\_\_\_  
(Signature)

Resolution No. 1

(APPROVED AS AMENDED)

SUBMITTED BY: Board of Trustees, Tulsa County Medical Society  
TITLE: Tuberculosis Units in Participating General Hospitals  
REFERRED TO: Reference Committee No. IV

WHEREAS, The Oklahoma State Medical Association concurs in the statement of the American Hospital Association to the effect that: "Medical progress during the past two decades has had a major impact on the patterns of health care delivery to patients with tuberculosis. Important factors that have contributed to these changes are the highly effective antituberculosis chemotherapeutic agents presently available and a better understanding of the epidemiology of that disease, particularly with reference to its infectiousness. As a result, it has become both medically and economically unreasonable to maintain large numbers of tuberculosis hospitals. Rather, it has become increasingly apparent that the general hospital is the logical place to admit tuberculosis patients who need hospitalization, whether for tuberculosis or some other concurrent or complicating illness,"

THEREFORE, BE IT RESOLVED: That the Oklahoma State Medical Association supports the concept that the patient with tuberculosis, needing hospitalization, can be effectively and efficiently treated in general hospitals which are willing to assume the necessary responsibilities and provide the necessary services required by such patients, and the Association would urge the establishment of appropriate facilities for the care of the patient with tuberculosis in general hospitals in Oklahoma. To this goal we pledge the cooperation of the Association in the essential community and professional efforts which must accompany such a program, and

BE IT FURTHER RESOLVED: That copies of this resolution be sent to members of the Oklahoma State Legislature with the request that appropriate legislative efforts be made to assure that state funds for the hospital care of the indigent patient with TB may

be made available for care of such patients in general hospitals meeting the American Hospital Association recommendations for care of patients with Pulmonary Tuberculosis, and

BE IT FURTHER RESOLVED: That copies of this resolution be sent to major third-party insurance carriers urging them to pay for such care of tuberculosis patients in a general hospital to the extent such benefits are provided in their other contracts providing general hospital benefits.

Resolution No. 2

(APPROVED)

SUBMITTED BY: Kingfisher County Medical Society  
TITLE: Quality Medical Care  
REFERRED TO: Reference Committee No. II

WHEREAS, a considerable pressure has appeared in Congress to broaden government health subsidies to all the population under a concept known as National Health Insurance, and

WHEREAS, no verifiable need for such programs has been demonstrated, and

WHEREAS, present government health programs have proven unduly expensive, disruptive of the patient-physician relation, and deleterious to quality medical care, therefore

BE IT RESOLVED: That the Oklahoma State Medical Association is opposed to any expansion of government health programs until after the defects are eliminated from those already in existence, and

BE IT FURTHER RESOLVED: That the Association inform the Oklahoma Congressional delegation of this resolution.

Resolution No. 3

(DISAPPROVED)

SUBMITTED BY: Kingfisher and Blaine County Medical Societies  
TITLE: Medical Quality Control  
REFERRED TO: Reference Committee No. III

WHEREAS, the medical profession has traditionally and successfully limited the application of untried treatments and unproven medical theories through the mechanism of peer review, and

WHEREAS, the Federal Government now hopes to pervert that traditional scientific mechanism into a monetary cost control apparatus to try to salvage certain inept programs, and

WHEREAS, the Oklahoma State Medical Association and its organs cannot fittingly execute economic sanctions, therefore

BE IT RESOLVED: That the Oklahoma State Medical Association now re-affirms the traditional concept that peer review will be confined to advisory declarations and educational efforts that do not compromise or

change the physician's contractual rights with his patient or employer, and

BE IT FURTHER RESOLVED: That the Oklahoma State Medical Association inform the Oklahoma Congressional delegation and the American Medical Association of the Association's intention to limit peer review to this concept.

*Resolution No. 4*

(APPROVED AS AMENDED)

SUBMITTED BY: Logan County Medical Society

TITLE: Opposition to PSRO

REFERRED TO: Reference Committee No. III

WHEREAS, it is agreed that the PSRO, portion of PL 92-603, represents oppressive Federal Government at its worst, and

A. that the PSRO portion of PL 92-603 may save money but not lives.

B. that the PSRO portion of PL 92-603 will create a new kind of charity case, those on Medicare and Medicaid.

C. that this law abrogates every political promise made to Medicare and Medicaid recipients.

D. that the PSRO portion of PL 92-603 further jeopardizes the confidentiality of patients' records.

E. that the PSRO portion of PL 92-603 leaves too many options to the Secretary of HEW and his famous regulators that could ultimately destroy the private practice of medicine.

F. that the PSRO portion of PL 92-603 is a lead-in prerequisite to socialized medicine.

G. that the PSRO portion of PL 92-603 is punitive to physicians.

NOW THEREFORE BE IT RESOLVED: That since the PSRO portion of PL 92-603 is incompatible with the goals and ideals of OSMA and the AMA code of ethics, as well as the pledge to his patients of every practicing physician, we therefore determine that the OSMA will go on record as being opposed to the PSRO portion of PL 92-603 and will transmit a properly recorded resolution to this effect to the AMA House of Delegates for their consideration.

*Resolution No. 5*

(APPROVED AS AMENDED)

SUBMITTED BY: Ray V. McIntyre, MD

TITLE: Direct Billing

REFERRED TO: Reference Committee No. III

WHEREAS, the setting of fees and the course of treatment has traditionally been

a matter between physician and patient, and WHEREAS, this arrangement has been so universally beneficial in the past, and

WHEREAS, taking assignment from third parties allows third parties to set fees and course of treatment;

NOW, THEREFORE BE IT RESOLVED: That the OSMA reaffirm its opposition to its members accepting assignment from third parties and that the OSMA again notify its membership of its opposition to its members participating in this interference in the doctor-patient relationship.

*Resolution No. 6*

(DISAPPROVED)

SUBMITTED BY: Ray V. McIntyre, MD

TITLE: AMA Code of Ethics

REFERRED TO: Reference Committee No. III

WHEREAS, Article 6 of the AMA Code of Ethics states:

"A physician should not dispose of his services under terms or conditions which tend to interfere with or impair the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

WHEREAS, the AMA has adopted an attitude of compliance and participation in PSRO or PL 92-603, and

WHEREAS, these two positions are mutually exclusive and incompatible;

NOW THEREFORE BE IT RESOLVED: That the AMA in order to be consistent either adopt a policy of non-participation in PSRO, or alter Article 6 of the Code of Ethics to read: "Physicians may, if expedient, dispose of their services in a manner which will subjugate their judgment in treatment of patients to other authorities."

*Resolution No. 7*

(APPROVED)

SUBMITTED BY: S. R. McCampbell, MD

TITLE: Appreciation of C. A. Hoffman, MD

REFERRED TO: Reference Committee No. I

WHEREAS, the members of OSMA are aware of and admire the courage, leadership and the devotion of his time, strength, and talents to the tasks as President of the AMA.

WHEREAS, we, the House of Delegates of OSMA wish to honor C. A. Hoffman, MD, President of the AMA.

BE IT THEREFORE RESOLVED: That we present Doctor Hoffman with a plaque commemorating his visit to the annual meeting of OSMA, 1973, stating our admiration, our thanks for a job well done, and our good wishes for the future.

*Resolution No. 8*

(APPROVED)

SUBMITTED BY: Harlan Thomas, MD  
TITLE: Mid-America Confederation  
REFERRED TO: Reference Committee No.

I

WHEREAS, the OSMA wishes its delegates to the AMA to have maximum effectiveness in representing Oklahoma physicians.

WHEREAS, this effectiveness can be increased by joining together for mutual interests with other state delegations in Mid-America.

WHEREAS, the officers and delegates have made overtures and working understandings with other state delegations to the AMA.

BE IT THEREFORE RESOLVED: That the Delegates to the AMA and officers of OSMA be empowered by this House to pursue and conclude agreements and understandings of a confederation nature with other state delegations in situations considered by the Oklahoma Delegation to be mutually beneficial.

*Resolution No. 9*

(APPROVED)

SUBMITTED BY: Arnold G. Nelson, MD  
TITLE: TV Documentary  
REFERRED TO: Reference Committee No.

II

WHEREAS, the public has been inundated by propaganda in the form of TV specials like "What Price Health?" by NBC and "Don't Get Sick in America" by CBS.

WHEREAS, these programs have been produced in a knowingly false manner to undermine American medicine and the AMA, and to foster socialized medicine in America.

NOW THEREFORE BE IT RESOLVED: That the AMA as a public service produce and find sponsors for an hour long TV show to inform the public of the truth about American medicine as exemplified in the book "The Case for American Medicine" by Harry Schwartz.

*Resolution No. 10*

(APPROVED AS AMENDED)

SUBMITTED BY: S. R. McCampbell, MD  
TITLE: Medicaid  
REFERRED TO: Reference Committee No.

III

WHEREAS, official policy of the Department of Institutions, Social and Rehabilitative Services includes rules requiring that the treating physician must accept assignment on Medicaid cases, and

WHEREAS, this policy is a working rule and not a law, and

WHEREAS, this policy is against the basic principles of many practicing physicians in Oklahoma.

WHEREAS, with the increasing number of physicians who are not accepting assignment on Medicaid recipients it is feared this may result in the Department of Institutions, Social and Rehabilitative Services no longer being in compliance with federal law requiring the furnishing of these services to all recipients throughout the state.

BE IT THEREFORE RESOLVED: That OSMA notify the Welfare Commission of its opposition to this policy with a request that it be discontinued in the interest of continued high quality medical care for Medicaid recipients.

*Resolution No. 11*

(DISAPPROVED)

SUBMITTED BY: Logan County Medical Society

TITLE: Membership Poll

REFERRED TO: Reference Committee No.

III

WHEREAS, the OSMA has attempted to explore the facts about PSRO, or PL 92-603, with its membership through meetings and mailings.

WHEREAS, PSRO is a matter that could potentially alter substantially the practice, life, and future of every physician in Oklahoma and his patients' welfare.

WHEREAS, every physician deserves an opportunity to express his opinion and his convictions about PSRO.

BE IT THEREFORE RESOLVED that the OSMA conduct a poll of its members on May 15, 1973, with a May 30, 1973 deadline to determine if the official policy of OSMA shall be one of non-participation or if the Oklahoma Foundation for Peer Review should be activated to do PSRO.

BE IT FURTHER RESOLVED that the results of this poll be transmitted to the AMA House of Delegates in June for its information and guidance. □

# CURRENT OBSTETRIC AND GYNECOLOGIC PRACTICE

POSTGRADUATE COURSE  
PRESENTED BY

*Department of Obstetrics and Gynecology  
The University of Texas Medical School  
at San Antonio*

January 24th - 30th, 1974

The course, given in three parts, each under the direction of a distinguished Visiting Professor, is designed primarily as an aid to candidates for the American Board examination, but will be useful to practicing physicians who desire a resume of modern clinical practices in obstetrics and gynecology.

Part I — Gynecologic Pathophysiology and Oncology — Directed by J. Donald Woodruff, Professor of Gynecology and Obstetrics, Johns Hopkins University School of Medicine, Baltimore, Maryland.

Part II — Gynecologic Endocrinology and Genetics — Directed by Walter L. Herrmann, Professor and Chairman of Obstetrics and Gynecology, University of Washington School of Medicine, Seattle, Washington.

Part III — Obstetrical Pathophysiology — Directed by Edgar L. Makowski, Professor of Obstetrics and Gynecology, University of Colorado Medical Center, Denver, Colorado.

The \$250 enrollment fee includes a study set of 35 mm Kodachrome slides, furnished to each registrant for home study in advance of the course. These slides will be reviewed at a seminar immediately after Part I of the course. Registration fee also includes cocktails and dinner on Saturday night, January 26. Saturday afternoon and Sunday, January 27, are free so that registrants may visit places of interest in San Antonio.

The course will be limited to 150 students. Registration must be made by December 1, 1973, and should be accompanied by a check payable to the Department of Obstetrics and Gynecology, UTMSSA. For further details and to register, write to C. J. Pauerstein, MD, Dept. Ob-Gyn, The University of Texas Medical School at San Antonio, 7703 Floyd Curl Drive, San Antonio, Texas 78284. □

## PRESCRIBING INFORMATION

**Antiminth (pyrantel pamoate) Oral Suspension**

**Actions.** Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

**Indications.** For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

**Warnings.** *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

**Precautions.** Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

**Adverse Reactions.** The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

**Dosage and Administration.** *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

**How Supplied.** Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

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## How's That Again?

Now that Phase III is with us, I have dug out my Phase II explanation which I received a year ago this month. When I first read it, I assumed I was seriously ill or acutely demented: even after six readings my comprehension of it did not improve. With each reading, my insecurity deepened and I became certain of my incompetence. So, I put it away rather than having myself put away.

But it is July again, and, with a real sense of dread I am anticipating the Price Commission's explanation of the updated Social Security regulations under Phase III controls on allowable charges under Medicare (Part B) . . . and I need help. Even now I am not quite clear about that 1972 change, particularly where it says,

The ruling of the Price Commission is that the Medicare reasonable charges in effect on November 13, 1971, must be considered as base prices for Phase II purposes, and that, as a result, they may not be increased by more than 2.5 percent in the aggregate during the fiscal year beginning July, 1972. Based on actual increases in Physician and supplier billings in calendar year 1971, the charges allowed under the Medicare program for the 12-month period beginning July 1, 1972, would have been increased by about 6.2 percent in the aggregate. To implement the Price Commission's ruling, therefore, only 40 percent (2.5 is about 40% of 6.2) of the increases that would ordinarily have been allowed will be recognized in calculating reasonable charges for the fiscal year beginning July 1, 1972.

Then comes a question. "What does this Price Commission ruling do to a physician's reasonable charge for fiscal year 1973?" And some further explanation.

If, for example, in 1970 a physician's customary charge for procedure X was \$8.00 and the prevailing charge was \$7.00, his reasonable charge would be \$7.00 for 1970.

If, for the same procedure X this physician's customary charge was \$8.00 in 1971 and the prevailing charge was \$8.00, his reasonable charge would be \$8.00 for 1971. As a result of the Price Commission's ruling, only 40% of the \$1.00 increase (\$7.00 in 1970 to \$8.00 in 1971) would be allowed. For fiscal year 1973, the reasonable charge for this physician would be \$7.40.

If a physician's reasonable charge for 1971 is equal to or less than his reasonable charge for 1970, no adjustment would be necessary for fiscal year 1973.

If a physician lacked customary charge data in 1970 for a given item or service, his reasonable charge was based on the prevailing. For fiscal year 1973, the 1971 reasonable charge must be compared to this 1970 prevailing charge. Where the 1971 reasonable charge is higher, then only 40% of the increase would be allowed.

I'm going to try a few more times. If I don't make it, I'm just not going to open any more mail. On the other hand, if I opened only 40% of it, since 2.5 is about 40% of 6.2 . . .

I really do need help. *MRJ*

□



The AMA meeting in New York was extremely beneficial to the OSMA. I received a beautiful plaque and the OSMA received a check for \$2,000.00 for the AMA Membership Achievement Award for outstanding achievement

in reporting the largest percentage of full dues paying AMA memberships in relation to the number of eligible physicians - 2,400 of 2,700. This award was presented at the opening session of the House of Delegates. We should all be very proud of this as well as the \$2,000.00.

The OSMA Delegation presented Resolutions in opposition to PSRO; in favor of Patient's Privacy; Experimentation of PSRO in Federal hospitals before in Private Care Hospitals; against HMO's; and against retrospective denial of Medicare admissions. The action of the House on these was: Included opposition to aspects of PSRO in a new resolution; approved the principle of patient privacy and referred it to the Board of Trustees; rejected PSRO in Federal hospitals (as not applicable); HMO's were referred to the Board; and retrospec-

tive denial was referred to the Council on Medical Services for them to report back at the 1973 Clinical Session. I feel, considering everything, that we came out very well with our resolutions.

We were all sorry that Doctor Scott Hendren could not attend, but we were well represented by Doctor Orange Welborn.

Now, for a little politics— Doctor Harlan Thomas of Tulsa will be a candidate for President of The American Academy of Family Physicians in October in Denver. We, in Oklahoma, should all support him. If you have friends in other states that are Family Physicians please have them contact their AAFP Delegates in behalf of Harlan *immediately*. You may recall he was President of OSMA in 1964-65 and is one of our AMA Delegates; also, he was Chairman of the Board of AAFP last year. He is an extremely capable man and will represent Oklahoma medicine well. I would also like to suggest if any of you would like to make a contribution to his campaign (hospitality room, badges, etc.) it would be greatly appreciated. I will be glad to have you mail any contributions to me (Drawer 8, El Reno, Oklahoma, 73036) — Make them out to OAFP and they are tax deductible. — DON'T WRITE — SEND MONEY!!

Sincerely,

*C Riley Strong M.D.*

## Psychosis With Chronic Brucellosis

JOHN A. MOHR, MD  
J. DAVID WILSON, MD

*Brucellosis in an acute form with severe systemic manifestation is usually recognized. However, when it presents as a psychotic illness the diagnosis may be very difficult.*

### INTRODUCTION

BRUCELLOSIS IS AN infectious disease caused by the organisms belonging to the genus *Brucella*. The disease is transmitted to man from lower animals, either directly or indirectly. There are at least three species of *Brucella* which are known and each in general is associated with an animal. *Brucella abortus* is associated with cattle; *Brucella melitensis* with goats; *Brucella suis* with hogs. There is a fourth which some authors call *Brucella canis* which appears to be associated with dogs.

The known clinical features as well as the pathology for these specific organisms are similar in that they have been associated with pathologic reactions ranging from non-specific inflammatory reactions to caseating

granulomas. The *Brucella* organism is an intra-cellular organism which tends to localize in cells of the reticuloendothelial system. It has long been recognized that chronic brucellosis may present as a neurotic illness, as pointed out by Spink in 1963<sup>1</sup>. However, in Spink's discussion he does not mention psychosis and these are somewhat rare. Dalrymple-Champaneeze<sup>2</sup> described two patients who had delusions and hallucinations. In 1931 Hobbs<sup>3</sup> described a case of a woman who developed delusions and a persecution complex associated with the illness. Annesley<sup>4</sup> reported a case of schizophreniform psychosis. The rarity of this disease and the difficulty in diagnosing such patients prompted the following case report.

### CASE PRESENTATION

A 30-year old white man was admitted to the Veterans Administration Hospital, Oklahoma City, Oklahoma after he had become markedly homicidal and psychotic.

The patient was born in Sioux Falls, South Dakota, and was the product of an uncomplicated nine-month term pregnancy. He stated that he drank unpasteurized milk for the first five years of his childhood. Following this, all ingested milk and milk products were pasteurized. The patient stated that he always enjoyed excellent health. He moved

to Guymon, Oklahoma in October, 1967. At that time, he was employed at the local meat packing company where he worked as a "gutter" on the kill floor. In October, 1967, he cut his thumb while gutting cattle. Within twenty-four hours he developed a fever of 104°, shaking chills, became very ill, and was hospitalized at the local hospital where he was told he had "blood poisoning." He was treated with multiple antibiotics, but improved only slightly. After two weeks in the hospital he was discharged and "convalesced" at home for two months. During that period, he was very weak, lost weight, and all incentive to work. In the fall of 1968 the patient began experiencing low back pain. He was then referred to another hospital where he was diagnosed as having a ruptured intervertebral disc, and was put in traction for several days. He was also diagnosed as suffering from reactive depression and was off work for two additional months. During the ensuing year he continued to be weak and depressed and lost many days of work because of his illness.

In early 1970, he began losing contact with his family and friends because of loss of interest, weakness and generalized aching. At about the same time, his sexual activity declined markedly. It is of interest to note that his sexual desire remained relatively normal; however, he was unable to maintain an erection and even more frequently failed to have an erection. His episodes of weakness, his loss of interest, and his sexual inabilities occurred very periodically and were more marked during the spring and fall at which times he would be hospitalized. During each of these episodes, he would become very depressed. He considered giving up and ending his own life.

During the following two years he was seen by many physicians in many hospitals. In September, 1971, he was told that he had missed in excess of 200 days of work during the preceding four years and that he would have to be suspended from his job. He states that "this was all I could take." He remained home for several days; then became actively homicidal and severely psychotic. He was then transferred to a mental hospital on an emergency basis.

There is no previous history of mental illness in the patient or within the family prior to the 1967 hospitalization. Further history reveals that associated with his depressive episodes he had profuse night sweats, intermittent low grade fever, decreased hearing, and marked tinnitus, pains in his mouth, nose, face, and all of his joints. He also complained of intermittent diarrhea, constipation, poor appetite, nausea, some vomiting and difficulty sleeping.

On physical examination he appeared very depressed and agitated. At one point in the interview he cried. He gave a rambling circumstantial account of a multitude of physical complaints. Head, eyes, ears, nose and throat were not remarkable. The chest was clear to auscultation and percussion. The heart and pulse were normal. The abdomen was scaphoid. The spleen was not palpated, and the liver span was 14 cm. Other findings were not remarkable although during the second week of hospitalization the patient developed axillary and epitrochlear lymph node enlargement.

During his interview and later during hospitalization he showed intense preoccupation with his many signs and symptoms, and avoided expressing his feelings and thoughts. He demonstrated poor ability for abstraction, as demonstrated by his interpretation of proverbs. He described frequent episodes of "disappearing" and leaving his immediate environment. During these episodes he was withdrawn and non-communicative. At other times he expressed considerable anger about the inability of physicians and his environmental associates to help him with his complaints. The patient's complete loss of contact with reality was initially controlled with massive doses of Thorazine.

#### LABORATORY DATA

Hemoglobin was 14.2 gms % and hematocrit 45%. The peripheral white blood cell count was 7,800/cu mm with a normal differential. The erythrocyte sedimentation rate, urinalysis, blood urea nitrogen, serum creatinine, liver function tests and uric acid were all within normal range. Skin tests

with tuberculin, histoplasmin and coccidioidin were negative. Febrile agglutinins including *Brucella* and tularemia were also negative six times, as were repeated blood cultures. Blocking antibodies for *Brucella* were done by Dr. H. H. Zinneman of Minneapolis, Minnesota, and the initial titer was 1:40. At this point the axillary and epitrochlear nodes were biopsied and cultures were obtained from them. Histologic study demonstrated non-specific sinus histiocytosis and both cultures produced *Brucella abortus* in pure culture. Treatment with peroral tetracycline hydrochloride was initiated and continued for six weeks without response and the blocking antibody titer remained 1:40. At that time streptomycin was added to the regimen, given intramuscularly, one gram daily. Within 14 days the tinnitus and generalized aching subsided completely. After 35 days of streptomycin therapy, psychiatric evaluation repeatedly failed to disclose any signs or symptoms of psychosis or personality disorder. The patient has returned to his original job without experiencing any difficulties. Taking no medications, he gained 20 pounds in two months following treatment. Audiograms obtained before, during and after the course of streptomycin therapy demonstrated no loss of hearing.

#### DISCUSSION

Characteristically, brucellosis as we recognize it is divided into four different types of disease. Number I: The bacteremic form,

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*John A. Mohr, was a 1964 graduate of the University of Oklahoma College of Medicine where he is presently Assistant Professor of Medicine, Microbiology and Immunology. Doctor Mohr is a member of the American Federation for Clinical Research, the American Society of Microbiology and is the American Thoracic Society Counsellor for the Scientific Assembly for Microbiology and Immunology.*

*A 1968 graduate from the University of Hamburg, Germany, J. David Wilson, MD, is now taking his third-year residency in psychiatry at the University of Oklahoma Health Sciences Center.*

where the onset is usually acute, systemic manifestations are severe and, if blood cultures are obtained, are usually positive, and the agglutination titers are high and rising. Number II: The sub-acute form in which the onset tends to be either acute, recurrent, or continuous. The systemic manifestations begin to vary from being identical to the bacteremic form, to consisting of vague complaints of malaise, intermittent fever and night sweats. Usually there is a history of exposure. The blood cultures are negative but the titers are high and rising. Number III: The chronic localized, as reviewed by Martin *et al.*,<sup>5</sup> where the onset is usually insidious and the systemic manifestations may be absent to rarely recurrent for years. Cultures, if a specific, affected organ is biopsied and cultured, usually yield *Brucella*. Titers may be low, high, or even absent. Number IV: The chronic forms where the onset is insidious and the systemic manifestations are extremely varied. Again, if appropriate tissue is cultured (as in our patient) the cultures are positive. However, in some instances the cultures remain negative and the agglutination titers may also be negative. At such times, study for blocking antibodies, as described by Hall,<sup>6</sup> may be helpful. Because of widespread pasteurization of milk and a decrease in the consumption of unpasteurized milk, the diagnosis of chronic brucellosis or even of acute brucellosis may be overlooked in our differential diagnosis when a patient demonstrates psychiatric problems or fever of unknown origin. □

Supported in part by Veterans Administration funds for Clinical Investigators and the Oklahoma Lung Research and Development Program.

We wish to thank Doctor H. H. Zinneman, VA Hospital, Minneapolis, Minnesota for his assistance in doing the blocking antibody studies.

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921 N.E. 13th Street, Oklahoma City, Oklahoma 73104

# Oklahoma's Medically Restricted Drivers

## A Study Of Selected Medical Conditions

TRENTON G. DAVIS, Dr PH  
EDWARD H. WEHLING  
R. LEROY CARPENTER, MD, MPH

*Oklahoma drivers with the diagnosis of diabetes, epilepsy or other neurological disorders have significantly higher accident rates than other drivers. This article calls attention to the need for physicians to counsel their patients and collaborate with the Medical Advisory Committee of the Department of Public Safety*

THE OKLAHOMA MEDICAL Advisory Committee (OMAC) was established in 1967 for the purpose of evaluating the driving ability of medically restricted drivers. Carpenters and Margo<sup>1</sup> have indicated that prior to the creation of the OMAC, driver's license administrators had been at a disadvantage in determining the physical fitness of the individual operating a motor vehicle. Since its establishment, the OMAC has worked diligently with the Oklahoma Department of Public Safety in an attempt to reduce the highway death toll in Oklahoma by carefully

reviewing the fitness of persons with certain chronic medical conditions with regard to their ability to drive a motor vehicle.

Evidence does indicate that any of the recognized chronic medical conditions such as diabetes, alcoholism, drug addiction, epilepsy, neurological disorders such as chronic brain syndrome, psychiatric conditions, and heart disorders could have an adverse effect on driving behavior. Waller's<sup>2</sup> widely quoted 1965 California study showed that drivers with diabetes, epilepsy, cardiovascular disease, alcoholism, and mental illness averaged twice as many accidents as drivers in a comparison group. Other studies have shown similar results—that drivers suffering from chronic medical conditions have higher accident and violation rates than those not known to be affected.<sup>3, 4, 5, 6</sup> One notable exception was Ysander's<sup>7</sup> study of 612 drivers in Sweden which showed that the percentage of drivers in a chronic disease group experiencing accidents was about half that of drivers in a control group.

However, even though Grattan and Jeffcoate<sup>8</sup> acknowledged that the literature on the relation between chronic medical conditions and accidents was extensive, they noted that most of the papers had not made use of control groups. McFarland<sup>9</sup> had earlier recognized the weakness of much of the literature

because of a lack of studies utilizing control groups.

For these reasons and because the OMAC desired to have a basis for future activities based on data pertinent to Oklahoma, a study was conducted in 1971.

#### METHOD OF STUDY AND DATA COLLECTION

The driving records of all individuals suffering from diabetes, cardiac or circulatory conditions, epilepsy, or neurological disorders such as a stroke or chronic brain syndrome, who were granted drivers licenses after being reviewed by the OMAC in 1969 were studied.

The name and Oklahoma driver license number of each medically restricted driver whose medical condition was reviewed by the OMAC in 1969 were obtained from the Oklahoma Department of Public Safety through the Driver Improvement Division. It was necessary to identify the medically restricted drivers in order to obtain their files from the central files of the Oklahoma Department of Public Safety. As part of the agreement with the Department of Public Safety and the OMAC, all means of identification of individual drivers were omitted from the study. Also, in accordance with the agreement, no attempt was made to contact any individual whose record was a part of the study.

From the record file of each of the individuals in the study, the number of moving violations and accidents accumulated during 1970 was recorded on individual cards. Also recorded were the sex, birth date, medical condition, and referral source. Accidents were considered to be single or multiple motor vehicle accidents in which the subject was the driver of a motor vehicle. Speeding, exceeding the legal or safe speed limits, and other moving violations defined by the Department of Public Safety were recorded under the heading of moving violations.

All accidents in which the medically restricted person was a driver were included in the study. Only moving violations for which the medically restricted driver entered a plea of guilty, was convicted by a court, paid a fine or offered bond forfeiture were included in the study.

All medically restricted drivers in the four specific categories who were licensed to drive

in Oklahoma during the entire year of 1970 were included in the study. Medically restricted drivers whose licenses were revoked or suspended for all or part of 1970 were not included.

The accident rates of 108 diabetics, 55 persons in the cardiac or circulatory category, 77 epileptics, and 78 individuals in the other neurological disorder category were compared with matched age and sex accident rates of all of Oklahoma's 1,651,245 licensed drivers for the year 1970.

The violation rates by age and sex of the four disease categories were compared with the total violation rate of all 1,651,245 licensed Oklahoma drivers. Statistics were not available from the Department of Public Safety to allow for the calculation of violation rates by age and sex for all licensed Oklahoma drivers.

#### OBSERVATION AND DISCUSSION

The proportion of males in the chronic disease groups was 69.8 percent, while the

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proportion of males in the total licensed driving population was 54.2 percent. This probably is a reflection of the fact that some medical conditions affect males more often than females, or that males suffering from a chronic medical condition are more insistent in their efforts to obtain a driving license in spite of their medical condition. These proportions were similar to those reported by Waller<sup>2</sup> in 1965.

Twenty percent of the study group were greater than 65 years of age, 43 percent were 24 years of age or younger, while 37 percent were 25-64 years of age. The majority of those individuals in the 24 year age group and younger were diagnosed as suffering from diabetes or epilepsy, while the majority of those in the 65+ age group were suffering from cardiac or circulatory conditions. Epilepsy and other neurological conditions were most common in the 25-64 age group. The age distributions were not greatly different than those reported by other researchers.

During 1970, the greatest percentage of persons in the selected chronic disease groups were not involved in an accident or guilty accidents or violations, few were involved in more than one violation or accident. The cardiac and circulatory group had the highest percentage of persons not involved in a known moving violation during 1970. The diabetics had the highest percentage of persons not involved in an accident. The distribution of violations and accidents is shown in Tables 1 and 2.

The OMAC recommended that drivers' licenses be granted to 20 persons who were suffering from more than one recognized

Table 2

DISTRIBUTION OF ACCIDENTS FOR  
SELECTED CHRONIC DISEASES

Number of Violations	Diabetes		Cardiac and Circulatory		Epilepsy		Other Neurological	
	Per		Per		Per		Per	
	N	cent	N	cent	N	cent	N	cent
0	101	93.52	50	90.91	65	84.41	68	87.18
1	6	5.56	5	9.09	10	12.98	8	10.25
2	1	0.92	0	0.00	2	2.61	2	2.57
3+	0	0.00	0	0.00	0	0.00	0	0.00
Totals	108		55		77		78	

medical condition. For those persons whose primary condition was diagnosed as other neurological, four were also suffering from diabetes, one was diagnosed as being psychiatric, two had restrictions for vision, and one was suffering from a cardiac or circulatory condition. For those in the cardiac and circulatory category, five were also diabetic, one was diagnosed as other neurological, three had restrictions for vision, and one was also an alcoholic. One epileptic and one diabetic were each diagnosed as suffering from a cardiac or circulatory condition. In no case did the OMAC recommend that any person suffering from more than two recognized chronic medical conditions be granted a driver's license.

The crude or overall violation rate for all licensed Oklahoma drivers was determined to be 26.4 per 100 drivers. The total number of moving violations reported by the Department of Public Safety was 436,129.

For epileptic drivers, it was determined that males as a group had an accident rate approximately three times greater than that of all licensed males. The accident rate of each age group for which a rate could be calculated was also higher than the matched age groups of the population. As might be expected, the 17-21 and 22-24 age groups were responsible for the highest rates. The violation rate was considerably higher than the overall population violation rate. Again, the 17-21 and 22-24 age groups were responsible for the highest violation rates.

Epileptic females as a group had a higher accident rate than that of all licensed females and had a lower violation rate than the overall population. The 17-21 age group accounted for all the violations attributed to female epileptics. It is interesting to note

Table 1

DISTRIBUTION OF VIOLATIONS FOR  
SELECTED CHRONIC DISEASES

Number of Violations	Diabetes		Cardiac and Circulatory		Epilepsy		Other Neurological	
	Per		Per		Per		Per	
	N	cent	N	cent	N	cent	N	cent
0	79	73.15	47	85.45	57	74.03	60	76.92
1	24	22.22	5	9.09	13	16.88	9	11.54
2	0	0.00	2	3.64	5	6.49	6	7.69
3	4	3.70	1	1.82	1	1.30	0	0.00
4+	1	0.93	0	0.00	1	1.30	3	3.85
Totals	108		55		77		78	

that the accident and violation rates for Oklahoma epileptics were lower than those for Washington epileptics.<sup>6</sup>

Males in the cardiac and circulatory category had an accident rate slightly higher than the rate for all licensed males. The accident rate of each age group, for which a rate could be calculated, was also slightly higher than that of the matched age groups. The violation rate was slightly lower than that for the overall population. The 65+ age group accounted for the majority of the accidents and violations. It appears that these rates were lower than those reported by Waller<sup>2</sup>.

Females in the cardiac and circulatory category as a group had a violation rate considerably lower than the overall rate. No accidents were recorded for females in this disease category.

The accident rate for male diabetics was slightly higher than the overall rate for all male drivers. The accident rate of male diabetics age 17-21 years was noticeably lower than that of all male drivers age 17-21. The violation rate for male diabetics was 1.8 times greater than the overall violation rate for all licensed drivers.

The accident rate for all female diabetics was lower than that for all female drivers,

and the violation rate was much lower than the overall population rate.

With respect to persons diagnosed as other neurological conditions, males in the 22-24, 25-44, and 45-64 age groups had a higher accident rate than the comparison groups, while the 17-21 age group had a rate one-half that of the comparison group. This is interesting in that the 17-21 age group has one of the highest accident rates of all licensed drivers. The violation rates of the age groups, for which a rate could be calculated, were all higher than the overall population rate.

As a group, females with other neurological conditions had an accident rate seven times greater than the overall accident rate for females. The 17-21 age group was responsible for all the violations credited to this chronic medical condition.

The overall accident and violation rates by chronic disease, and the overall accident rates for all licensed Oklahoma drivers are shown in Summary Tables 3 and 4.

It was felt that an attempt to determine whether the age-sex specific rates of the chronic disease groups were statistically different from the matched age-sex specific rates of the licensed driving population, by using the Student's t-test or a similar technique, would be misleading in light of the small number of persons in many of the age-sex disease groups. For example, the addition of a single accident to the 22-24 age group of male epileptics would change the rate from 40.00 to 60.00. The age-sex specific comparisons are not to be discounted because these comparisons minimize the effect of the overrepresentation of males and older persons in the chronic disease groups. For these reasons, the rates were reported as being higher or lower than those of the matched groups.

Speeding was the most common violation attributed to diabetics, epileptics and persons in the other neurological category. The distribution of other violations was fairly random, except that persons in the other neurological category were credited with more violations for reckless, careless, or negligent driving than any of the other disease groups. Surprisingly, driving while intoxicated accounted for few of the recorded violations. It has been reported that the violation experience of drivers with recognized

Table 3

\*MOVING VIOLATION RATES FOR SELECTED CONDITIONS IN MEDICALLY HANDICAPPED OKLAHOMA DRIVERS, 1970

	Male	Female	Male & Female
Diabetes	49.2	20.9	38.0
Cardiac & Circulatory	24.4	14.3	21.8
Epilepsy	49.0	19.2	39.0
Other Neurological	50.8	15.4	42.3
All Licensed Oklahoma Drivers			26.4
*Violations per 100 drivers			

Table 4

\*ACCIDENT RATES FOR SELECTED CONDITIONS IN MEDICALLY HANDICAPPED OKLAHOMA DRIVERS, 1970

	Male	Female	Male & Female
Diabetes	9.2	4.7	7.4
Cardiac & Circulatory	12.2	0.0	9.1
Epilepsy	23.5	7.7	18.2
Other Neurological	10.8	30.8	14.1
All Licensed Oklahoma Drivers	8.7	4.8	7.1
*Accidents per 100 drivers			

chronic disease is different than that of drivers not known to be affected.<sup>3</sup>

Most of the chronic medical conditions, 220 out of 318, were brought to the attention of the OMAC by driver licensing examiners. These individuals had indicated on their driver license applications that they had a medical condition that could affect driving. The fact that this referral source screens only those who are applying for their first driver's license, or drivers moving from other states, could help explain the age distribution of the medical groups. Enforcement officers were responsible for the referral of 35 persons with chronic medical conditions. The majority of these persons had been involved in an accident or violation, and the enforcement officer had reason to suspect that they were suffering from some medical condition. Physicians were responsible for referring very few persons, which adds some support to the contention that physicians are very reluctant to refer patients to medical advisory committees.<sup>10</sup> In fact, the families of persons suffering from a medical condition were responsible for the referral of more persons than physicians. A significant percentage of persons directly informed the OMAC that they were suffering from a medical condition.

#### CONCLUSIONS

Based on the results and observations of this study, the following were concluded:

1. Oklahoma drivers diagnosed as being epileptic, diabetic or having other neurological conditions have higher accident and violation rates than licensed Oklahoma drivers not known to be affected.

2. Oklahoma drivers diagnosed as suffering from cardiac or circulatory conditions, as a group, have lower violation rates, and slightly higher accident rates, than drivers not known to be affected.

3. The driving exposure of medically restricted drivers may, or may not be similar to that of Oklahoma drivers not known to be affected. A means should be utilized whereby the number of miles driven per year could be estimated for persons in the chronic disease groups as well as drivers not known to

be affected; it would then be possible to compare driving experience on the basis of driving exposure.

4. The accident and violation rates of Oklahoma's medically restricted drivers may not be reflective of the rates that could be expected in other states. The literature and the results of this study seem to substantiate this conclusion. One problem encountered in comparing rates between states has been the difference in definitions of some of the medical categories. This problem could be alleviated should the states adopt and utilize a standard procedure for categorizing and evaluating chronic medical conditions.

5. Drivers with some chronic diseases are apparently able to compensate for their medical condition and drive in a normal manner. Oklahoma drivers with cardiac or circulatory conditions may be in this group. Crancer and McMurray<sup>6</sup> came to the same conclusion in reference to Washington drivers with vision deterioration.

6. Drivers with some chronic diseases apparently are unable to drive as well as the average driver because of their medical condition. This may be true of persons in the other neurological category. Crancer and McMurray<sup>6</sup> suspected that Washington drivers who experience sudden epileptic seizures were unable to drive as well as the average driver because of their illness.

7. Regardless of the medical condition, males have higher accident and violation rates than females.

8. Based on the experience of other states, it is apparent that the majority of Oklahoma drivers suffering from a medical condition that could affect driving, have not been brought to the attention of the OMAC.

9. In Oklahoma, physicians are responsible for referring very few persons to the OMAC. Historically, physicians have been reluctant to refer patients to medical advisory committees for fear of violating a patient's confidence. Waller and Thunen<sup>11</sup> have reported that, "The physician who examines a patient for impairment to driving must consider the welfare of the community which will be exposed to the patient's driving in addition to the welfare of the patient himself."

Carpenter and Margo<sup>1</sup> have stated that

there is a need for private practitioners in Oklahoma to keep in mind the potential driving hazards in their patients with certain physical and emotional conditions and urged physicians to collaborate with the OMAC or the Department of Public Safety whenever appropriate.

It is felt that as reporting becomes more complete and as the OMAC has the opportunity to evaluate the fitness of greater numbers of persons suffering from chronic medical conditions with regard to driving a motor vehicle, the accident and violation rates of persons in these disease categories will fall. This is consistent with the aims of the OMAC and the Department of Public Safety to reduce injuries and deaths on Oklahoma highways.

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## AMA Update Reports Opinion Survey

Nearly 10,000 Americans in 22 communities were surveyed in a project conducted for the AMA by Decision Making Information, an independent polling firm based in Santa Ana, California.

Purpose of the poll was to determine "how do Americans really feel about National Health Insurance?"

To arrive at some indication, the company sent out two opposing points of view on each question. "Mr. Smith" represented the liberal for Kennedy-like point of view, while "Mr. Jones" was the conservative.

By about five to four, respondents tended to agree with Mr. Smith . . . the liberal . . . that government had *some* responsibility for people's health care. However, only two and one-half in ten agreed "exactly" with Mr. Smith on this point.

On the other hand, by about six to four, respondents tended to agree with Mr. Jones . . . the conservative . . . that participation in a National Health Insurance Program should be voluntary, not mandatory. Only about three in ten agreed "exactly" with Mr. Jones, however.

Mr. Smith believed that it was necessary

for the government to take care of the health care needs of everyone. He felt that such health care needs should be mandatory and that all medical bills should be paid for by NHI. He wanted everyone to financially support and participate in the program, and wanted it to be run entirely by the federal government.

Mr. Jones, on the other hand, believed that people could still take care of themselves. However, there are certain groups that do need assistance, such as the poor, the aging, or the chronically ill. He believes that National Health Insurance should only pay for those medical bills resulting from very serious illness or accidents and that any participation in such a program should be voluntary. The program itself should be operated by private insurance companies.

Very few of the respondents were impressed with the "exact" NHI programs advocated by either Mr. Smith or Mr. Jones. Fewer than one in ten agreed exactly with either position. A clear majority, eight out of every ten indicated a preference for a National Health Insurance that lies about midway between the extreme position. ☐

# The Conquest Of Cancer—

## A Plan For Oklahoma

G. BENNETT HUMPHREY, MD, PhD  
LEONARD P. ELIEL, MD

*Oklahoma is planning a cancer program.  
Hopefully, this will improve the care  
and extend the life expectancy of  
the patient with this dread disease.*

IN 1971 PRESIDENT NIXON announced his plan, "The Conquest of Cancer," which encouraged the creation of a series of cancer programs in the United States. What could such a program mean to the physicians and people of the State of Oklahoma? It essentially means we have an opportunity-to-improve-cancer care, teaching and research within the state with the aid of government funds administered through the National Cancer Institute (NCI) of the National Institutes of Health (NIH).

Following the President's announcement, a multidisciplinary, multiprofessional committee was formed in 1971 at the University of Oklahoma Health Sciences Center (OHSC) to plan a comprehensive program which would improve cancer teaching, care and research in Oklahoma. (Table 1) The members of this committee include individuals from a wide range of disciplines including nursing, medicine, allied health professions, physician's associates, basic scientists, etc.

A request for a planning grant was submitted in February of 1972 to the NCI of

TABLE 1

CANCER PROGRAM COMMITTEE  
University of Oklahoma Health Sciences Center  
Leonard P. Eliel, MD

Principal Investigator of Cancer Planning  
University of Oklahoma Health Sciences Center

G. Bennett Humphrey, MD, PhD  
Project Director and Chairman  
Cancer Program Committee

### COMMITTEE MEMBERS

Paul Anderson, PhD  
College of Health

Carl Bogardus, Jr., MD  
College of Medicine (Radiological Sciences)

Richard Bottomley, MD  
College of Medicine (Internal Medicine)  
Oklahoma Medical Research Foundation

Reagan Bradford, MD  
Oklahoma Medical Research Foundation

James Hampton, MD  
College of Medicine (Internal Medicine)  
Oklahoma Medical Research Foundation

Neal H. Hardin, MA  
College of Allied Health Professions

James M. Hartsuck, MD  
College of Medicine (Surgery)

Gordon K. Jimerson, MD  
College of Medicine (Gynecology & Obstetrics)

Ann McCorry, MPH  
College of Nursing

Harry Miller, MD  
College of Medicine (Urology)  
Veterans Administration Hospital

Willard B. Moran, Jr., MD  
College of Medicine (Otorhinolaryngology)

William Stanhope, PA  
College of Health  
Physician's Associate Program

Supported by the Department of Health, Education and Welfare Grant Number 1 PO1 CA13749.

the NIH requesting funds which would allow Oklahoma to enter into a two year planning process for a broad cancer program. This grant was recently funded.

Although it may reveal the need for facilities at the OHSC (*ie* laboratory space, office space, outpatient space), the planning process is designed to produce a diffuse program throughout the state. Thus, the planning process is more concerned with a cancer program rather than a cancer center. The overall goal in the planning process is, therefore, to establish a cancer program which assists practicing physicians and their patients throughout the state rather than a service for the exclusive benefit of health personnel at the OHSC. The objectives to be followed in this planning process are:

1. To develop an overall program for the orderly, prompt implementation of an effective comprehensive cancer center program at the OHSC.
2. To determine how best to correlate the existing health care resources within the State of Oklahoma with a cancer program at the OHSC.
3. To establish program goals necessary for exemplary prevention, control and rehabilitation services to the people of Okla-

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*A 1960 graduate of the University of Chicago, The School of Medicine, G. Bennett Humphrey, MD, is Associate Professor of Pediatrics at the University of Oklahoma Health Sciences Center. He is a member of the American Society of Clinical Oncology, the American Association for Cancer Education, the American Association for Cancer Research, the Southwest Section of the American Society for Hematology and the Experimental Hematology Society. He is also a principal investigator of the Southwest Cancer Chemotherapy Study Group.*

homa and to improve research in cancer and in the design of exemplary services.

4. To define an operational strategy for successful implementation of an overall plan that includes public and professional support including a rational financial plan.

The planning process is to be completed by March of 1975. It will first focus on evaluating present resources and later determine what new programs need to be created to meet all the obligations of a comprehensive cancer program for Oklahoma. All feasible alternatives will be explored in order to select the best overall plan.

An in depth study of the costs of establishing and maintaining the program is a crucial phase of the planning process. Although initial funding will come from government sources, the program ultimately is expected to be self-supporting through endowments, third-party payments and other means. Long-range financial planning will include means of insuring stable fundings for its programs and facilities. This is especially true in these days when government priorities and budgets may leave functioning programs suddenly without support.

The overall goal of the planning process is a cancer program designed to assist practicing physicians and their patients throughout the state; and to determine the sustaining components of that program for which the OHSC Cancer Program should take responsibility. Alternative approaches to achievement of these goals will be examined through March of 1974. A detailed financial analysis of the proposed program will be prepared during the final phase.

Development of the Oklahoma Program will be guided by the key cancer objectives as recently defined by the NCI. These objectives are paraphrased below:

*Objective 1.* To reduce the effect of external agents in the development of malignancies.

*Objective 2.* To modify individuals (*eg*, by vaccination) to decrease the likelihood of cancer development.

*Objective 3:* To prevent the conversion of normal cells to those capable of forming cancer.

*Objective 4:* To prevent the establishment of tumors or spread of tumors from cells already capable of forming cancers.

## *Cancer* / HUMPHREY, ELIEL

*Objective 5:* To make an accurate assessment of cancer risks in various population groups as an aid to prevention, cure, or prognosis.

*Objective 6:* To cure as many patients as possible and to maintain maximum control of the cancerous process in patients not cured.

*Objective 7:* To restore patients with residual deficits as a consequence of their disease or treatment to as nearly a normal functioning state as possible.

Each phase of the planning process will involve professional and lay persons outside the OHSC to utilize their experience, input, and gain their support. The cancer program

committee has already obtained consultation from interested individuals and other agencies and institutions. In addition, the committee will be grateful for assistance volunteered from any interested person. Correspondence may be addressed to Doctor G. Bennett Humphrey, Director, Cancer program, Children's Memorial Hospital, University of Oklahoma Health Sciences Center, Post Office Box 26901, Oklahoma City, Oklahoma 73190. ☐

### ACKNOWLEDGEMENTS

We wish to acknowledge the assistance of Ms. Sue Carter, Editorial Services, Learning Research Center, Sandy Shipley and Barbara Wilson in the preparation of this manuscript.

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## MEDICAL ONCOLOGY COURSE

Presented by

THE UNIVERSITY OF TEXAS SYSTEM CANCER CENTER  
M. D. ANDERSON HOSPITAL AND TUMOR INSTITUTE AT HOUSTON

in cooperation with

THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT HOUSTON  
DIVISION OF CONTINUING EDUCATION

September 24th - 28th, 1973

This comprehensive, intensive course is designed to review current concepts of the natural history, diagnosis, therapy, and clinical management of the spectrum of malignant disease cared for by the medical oncologist. In addition, brief reviews will be given of the current status of viral oncology and tumor immunology. The course will consist of 32 hours of didactic lectures with time for discussion. It is scheduled for Monday through Friday, September 24 - 28, 1973 in Houston. Approved for 32 hours official credit.

**Tuition Fee: \$150.00**

**For further information write:** The Office of the Director, The University of Texas Health Science Center at Houston, Division of Continuing Education, P. O. Box 20367, Houston, Texas 77025.

## EPIDEMIOLOGY OF ACTIVE TUBERCULOSIS

During 1972, 344 active tuberculosis cases were investigated which resulted in the identification of 10 contacts per case; 2.1 household and 7.9 nonhousehold contacts. Over 95% of the contacts were examined with the household contacts yielding 9 new active cases for a rate of 12.9 per 1,000 contacts examined. Fifteen new active cases were found among the nonhousehold contacts for a rate of 5.8. These rates compare with an overall new active tuberculosis case rate for Oklahoma of 12.5 per 100,000 population.

A total of 466 household and 333 non-household contacts were placed on preventive treatment. Household contacts were placed on preventive treatment five times more often than were nonhousehold contacts (66.8% for household and 13% for non-household).

The percentage of contacts who were infected with tubercle bacilli, as indicated by a positive tuberculin test, was 32.4% for household contacts and 21.6% for nonhousehold contacts. The infection rate for all contacts in 1972 was 23.9% compared to a rate



## News From The Oklahoma State Department of Health

of around 8% for Oklahoma's general population.

These data demonstrate the focal nature of tuberculosis transmission today. Most exposure to tuberculosis occurs within the family or household setting. For this reason, the State Health Department emphasizes the importance of prompt examination and preventive treatment for contacts of active cases rather than unproductive mass screening programs.

Household contacts of active cases, regardless of tuberculin test results, should be promptly placed on isoniazid, 300 mg, single daily dose for adults and 10 mg/kilo body weight not to exceed 300 mg daily for children. Positive tuberculin test reactors should take isoniazid for 12 months. Isoniazid should be discontinued for contacts with a negative tuberculin test after contact with the active case has been broken. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR MAY, 1973

Disease	May 1973	May 1972	April 1973	Total to Date	
				1973	1972
Amebiasis	—	2	10	13	14
Brucellosis	—	1	—	2	4
Chickenpox	203	13	233	1142	133
Encephalitis, infect.	3	1	3	8	3
Gonorrhea	899	1047	785	4442	4150
Hepatitis, infect. & serum	110	121	79	465	390
Leptospirosis	—	—	—	—	1
Malaria	—	1	1	1	3
Meningococcal infections	3	—	3	10	6
Meningitis, aseptic	5	—	11	20	21
Mumps	51	43	89	296	151
Rabies in animals	27	36	32	97	173
Rheumatic fever	2	6	2	9	20
Rocky Mt. spotted fever	13	4	4	17	7
Rubella	27	16	31	159	31
Rubella, congenital syn.	—	—	—	—	—
Rubeola	18	1	7	40	9
Salmonellosis	20	18	13	75	57
Shigellosis	18	10	30	88	29
Syphilis (infectious)	31	151	21	302	492
Tetanus	—	—	1	1	—
Tuberculosis, new active	24	36	33	134	133
Tularemia	—	2	—	7	4
Typhoid fever	—	—	—	1	1
Whooping cough	4	—	2	14	11

## **One PSRO For Oklahoma Backed By Congressional Delegation**

Oklahoma's Congressional Delegation headed up by Speaker of the House Carl Albert, has formally requested HEW to give consideration to the OSMA's request that the entire state of Oklahoma be designated as a single Professional Standards Review Organization area.

The Oklahoma Congressional Delegation's request came after a meeting with OSMA representatives on May 28th.

On that date the American Medical Association had set up a special PSRO briefing for state medical association officials in Washington. At that time they met with William Bauer, MD, the new PSRO Director for HEW. Following that meeting each state was encouraged to meet with its Congressional Delegation to make its wishes known to its own representatives.

Oklahoma was represented by C. Riley Strong, MD, OSMA President; Joe Crosthwait, MD, OSMA Board of Trustees Chairman, Hillard Denyer, MD, Chairman of the OSMA Peer Review Foundation; and Don Blair, OSMA Executive Director.

After meeting with the OSMA representatives, the Oklahoma Congressional Delegation discussed the PSRO situation privately and agreed to send a letter to Casper Weinberger, Secretary of HEW. The letter was sent on May 30th and stated, "It is our understanding that the Oklahoma State Medical Association has requested your agency to designate the entire state of Oklahoma as a single Professional Standards Review Organization area." It then went on to say, "We will be grateful for your consideration of this request and for being advised of your action." The letter was issued from the Office of the Speaker of the House of Representatives, Carl Albert, and was personally signed by all members of the Oklahoma delegation: Henry Bellmon, Dewey Bartlett, James Jones, Clem McSpadden, Tom Steed, John Jarman, and Happy Camp.

Other state delegations may have had similar success with their congressional representatives. Some 150 physicians representing 38 state medical associations and foundations visited their congressmen and federal officials to urge statewide PSRO coordinating systems.

HEW has indicated that it will permit statewide "umbrella" systems only in very small states although the law contains no such restriction. Chief Congressional sponsor of PSRO, Senator Wallace Bennett (R-Utah) insists that the intent of the law is to bar statewide setups in larger states. However, such restrictions are not specified in the law itself. All mention of such restrictions are found only in reports prepared by the Senate Finance Committee.

Henry Simmons, MD, Deputy Assistant Secretary for Health, said "It appears clear that statewide PSROs would be difficult to square with congressional intent." The legislative history of the provision, the doctor added, "makes plain" that there should be a number of PSROs in the larger states.

Critics of the multiple-in-state PSRO approach have pointed out that the purpose of the review system initially will be to conduct reviews for Medicare and Medicaid . . . both of which are set up in most states on a statewide basis. To have one Medicare carrier for an entire state attempting to work with several PSROs would appear to be "administratively ridiculous from an efficient management point of view."

PSRO Director, William Bauer, MD, told the state representatives that he desired to be flexible in operating the program. He said final area designations won't be made until November at the very earliest. He echoed Doctor Simmons assertion that larger states won't be able to establish PSRO organizations to supervise the program throughout the state. "States with a significantly large number of physicians can be expected to have more than one PSRO," he told the meeting.

During the same meeting he also told state representatives that the regulations for PSRO would not be published in their entirety this year. He said that they would come out in the form of "guidelines" over the next several years. □

## Physician Opinion Survey Published By AMA

Results of the 1973 AMA membership opinion survey on the critical issues facing the practice of medicine were published during the AMA's New York Annual Convention in late June.

The survey, a questionnaire containing six questions, was distributed to 186,000 AMA members. Fifty-two percent of the members responded by filling out the questionnaire and returning it. The survey was the second of its kind conducted by the AMA.

Prepared by the AMA's House of Delegates' Committee on Membership Opinion Poll and the AMA's Center for Health Services Research and Development, the survey yielded these general findings:

—Assignments under Medicare were frequently accepted by 32.4 percent of the respondents, occasionally accepted by 23.3 percent, and rarely or never accepted by 27.8 percent.

—Decision making in hospitals by the medical staff was favored. For example, 94 percent of the respondents said the medical staff should have primary responsibility to propose appointments to the staff and 59.5 percent said the medical staff should have the primary responsibility to implement and execute appointments

—Practical experience in an office practice, patient care setting, should be a requirement of medical training according to 70.5 percent of the respondents. Fifty percent indicated that preceptorship training should be a part of both undergraduate and graduate training. An additional 23.6 percent favored such experience as part of graduate training.

—Sources of drug information influencing the prescribing patterns of respondents were: *Physician's Desk Reference*, 84 percent; opinion or recommendations of other MDs, 79.6 percent; FDA notices and publications, 62.1 percent; drug packet inserts, 57.1 percent; drug detailmen, 52.2 percent; *AMA Drug Evaluations*, 50.7 percent; pharmaceutical company advertising in medical journals, 24.9 percent, and direct mail promotion by pharmaceutical companies, 17.1 percent.

—Third party intermediaries, private and federal, should not exercise total authority in

the review of professional services, the respondents said. More than 50 percent felt that no third party authority should be exercised in utilization review of ambulatory services, the establishment and monitoring of quality care standards and physicians' fees. In the area of review of in-patient services, 48.5 percent felt that third party intermediaries should have partial responsibility for rate review.

—If a compulsory national health service were adopted in the United States, 28.7 percent of the respondents would continue their private practice, 20.9 percent would join the federal program and practice in it, and 32.7 percent were undecided or did not wish to express an opinion at this time. Some changes in opinion have occurred since the 1972 poll, when 28.1 percent of the respondents indicated they would continue their private practice, 24.6 percent would join the federal program and only 21.6 percent were undecided or did not wish to express an opinion.

A detailed explanation and analysis of the poll may be found in the June 25th issue of *American Medical News*. ☐

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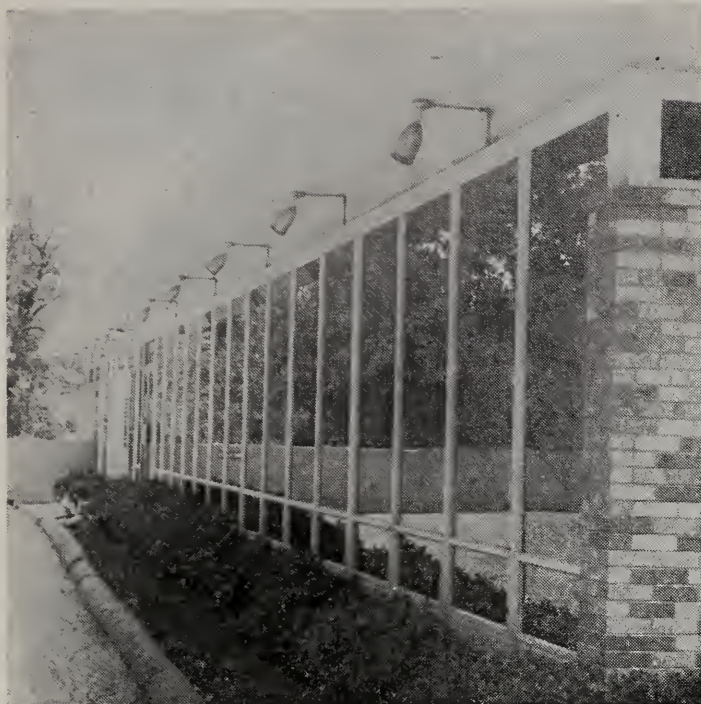
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## **New OSMA Membership Categories Available**

During the Tulsa meeting, the OSMA House of Delegates created three new membership categories in the OSMA and modified a fourth one. The changes were based on recommendations received from the association's Constitution and Bylaws Committee.

In past years physician members of the association that have found it necessary to leave the state for one reason or another discovered that they would have to terminate their membership. The House modified the "Affiliate Members" section to provide that any active member who finds it necessary to leave the state in order to engage in "medical missionary, education, or philanthropic labors . . ." will be eligible for this membership classification. As an Affiliate Member he may be required to pay partial dues in an amount to be specified by the Board of Trustees. He can be entitled to all privileges of membership, except voting and holding office.

The membership privileges will allow him to continue to receive the publications of the association, and retain in force the various association sponsored insurance programs . . . with the specific exception of the professional liability program.

A new category, Corresponding Member, was created to be "conferred on those active members of the association who find it necessary to leave the state, but desire to retain contact with the association and their colleagues."

This category is available to that physician who chooses to leave Oklahoma to practice or retire in another state. However, in order to retain this membership status he must either retire or, if he chooses to remain in practice, belong to and be a member in good standing of another constituent component of the AMA.

The Corresponding Member shall be required to pay partial dues in an amount to be specified by the Board of Trustees. Here again, such a member is entitled to all privileges of membership, except voting and holding office.

The Corresponding Member category was created to help those physicians who have purchased association insurance in the past

and now find that they are uninsurable. Here again, the professional liability insurance cannot follow them to another state, but most other association programs can.

The House altered the "Honorary Member" section of the bylaws to such an extent to make it a new membership category. Honorary Membership may be conferred on those persons who meet one or more of the following classifications: "(a) Non-physicians engaged in medical education or medical research; or (b) Other persons whose contributions to medicine justify the honorary membership."

Persons serving as fulltime medical students in the Oklahoma University College of Medicine may become members of the association, "upon application of a component society . . ." Membership in this category is limited to the period of training.

Medical student members shall not pay dues, but "they shall be entitled to all of the privileges of membership, except voting and holding office . . . however, they shall not be entitled to receive any publication of the association except by subscription."

In a related move, the House of Delegates amended the bylaws to provide that two representatives of the OU Medical College SAMA Chapter shall be seated in the House of Delegates. Although they are allowed full privileges of the floor, they cannot vote.

Physicians wishing to become Affiliate or Corresponding Members of the association must initiate such requests through their component county medical society. The Board of Trustees in each instance can act only upon a petition from the local society. □

## **Aetna Announces Medicare Charge Update**

The Aetna Life and Casualty Company, Medicare Claims Administrator for Oklahoma, has announced that its annual update on allowable Medicare charges went into effect on July 1st.

Present Social Security Administration regulations require an annual update on allowable Medicare charges. The allowable charge amounts are to take into account the actual charges physicians and suppliers have billed for covered Medicare services in the immediately preceding calendar year. Thus, the 1973 update charge levels were calcu-

ated from actual charge levels from calendar year 1972.

Aetna's preliminary information from the Social Security Administration is that the impact of Phase III and IV price controls (basically the same for physicians) will be to require carriers to compare charges made for 1972 services with the allowable charge amounts calculated from 1970 services and that only 55 percent of any increase during that time period will be recognized.

As an example of such updates, if a physician's charge for a particular service in 1972 was \$8.00, and this amount was not greater than the prevailing charge in his area for this service, it would be compared with the allowable charge for the same service based on 1970 data. Assume that in 1970 the physician was charging \$7.00 for the same service, Aetna Medicare could recognize 55 percent of the \$1.00 increase. Thus, 55 percent would place the physician's new allowable charge amount at \$7.55. Any time one of the physician's patients billed Medicare for this service, the patient would be reimbursed at \$7.55 for the \$8.00 charge.

In a news release, the Aetna Life & Casualty Medicare Claims Administration stated that they will "issue to all state physicians and suppliers a detailed explanation on the upcoming 1973 update" as soon as the Social Security Administration releases the final clarifications. □

### **DuVal Named To National PSRO Council**

A former Oklahoma physician, Merlin K. DuVal, MD, has been named to the 11 member national Professional Standards Review Council.

Doctor DuVal is currently serving as Vice-President for Health Sciences at the University of Arizona. Prior to going to Arizona he had served as the Health Education and Welfare Assistant Secretary for Health.

At least two Oklahomans were among the nearly 200 MDs nominated to serve on the National Council.

In 1971 DuVal was named by President Nixon as Assistant Secretary of Health and Scientific Affairs for HEW. He kept that position until late 1972.

DuVal was a member of the University of Oklahoma School of Medicine faculty from 1957 until 1964, when he resigned to become Dean of the then new University of Arizona Medical School. At the time of his resignation from OU, he had served nearly two years as Assistant Director of the OU Medical Center and also was Professor and Vice-Chairman of the Department of Surgery. While in Oklahoma the doctor was quite active in organized medicine and civic affairs. He is a Past-President of the Oklahoma Surgical Association and was active in many national surgical organizations. He served as a member of the Board of Directors of the Oklahoma City Chamber of Commerce, was a member of the Governor's Commission for Higher Education and was a founding member of Oklahoma City's Association for Responsible Government. □

### **HEW To Reissue Pre-certification Of Elective Admissions Letters**

A move by HEW through the Social Security Bureau of Health Insurance to order Medicare and Medicaid intermediaries to institute pre-admission certification programs has been vigorously opposed by the American Medical Association.

Shortly after the first of the year the Bureau of Health Insurance issued intermediary letters . . . letters of instruction to Medicare carriers . . . instructing Medicare and Medicaid intermediaries to augment hospital utilization review programs by requiring a pre-admission certification. Further they were to use national, regional or other appropriate data on length of stay by diagnosis to establish extended-stay cut-off dates.

The original intermediary letter was issued in "advance copy" form. This meant that the carriers were being put on notice that the letter would be issued "officially" at a later date. The advanced copy of the letter was withdrawn before it became official.

A rewritten intermediary letter, again issued in the "advance copy" form, came out in May. Substantially the letter was the same as the original intermediary letter issued earlier in the year.

As soon as the letter was reissued to the carriers, the American Medical Association wrote to and visited with HEW Secretary

Casper W. Weinberger. AMA Board Chairman, John R. Kernodle, MD, urged that "... the Social Security directive be reviewed, not only from the standpoint of its validity under the Medicare law, but also with respect to its apparent pre-emption of functions given by the Congress to Professional Standard Review Organizations (PSRO).

"... We believe the purpose of the intermediary letter should be limited to administrative matters affecting carriers. If providers of services are affected we believe that any changes should be the subject of proposed regulations under which the providers and the carriers are given an opportunity to present their views. In the case of the intermediary letters under consideration, we question their validity and appropriateness at this time. We believe that they should not be issued at this time and that they should more appropriately be included in the PSRO regulations."

Following this opposition HEW apparently agreed that the pre-certification programs involved more than an administrative function and should be published in regulation form.

The intermediary letter requiring the pre-admission certification will not be issued, but the expanded function of the utilization review committees in the hospitals will be the subject of new regulations to be published in the Federal Register in the near future.

The regulation making procedure of the federal government requires that any proposed regulation be published in the Register and then all interested persons be given 30 days to express their views on the subject of the regulation. Indications are that when the regulations come out the AMA will again oppose them on the basis that they pre-empt the functions given by Congress to PSROs.

It is believed that the regulations will call for substantially the same functions as outlined in the original intermediary letter. Under the original letter it would have been necessary for hospitals to require that the attending physician present "appropriate documentation for use by the (utilization review) committee, or its representative, for approval of the hospital admission *prior to—or at the time of—elective admissions, and within one working day subsequent to emergency or urgent admissions.*"

The letter went on to specify that a rep-

resentative of the utilization review committee would be required to review all applications for admission of Medicare beneficiaries, "however, not all would be reviewed in the same depth. By employing a selection technique found appropriate by SSA, the utilization review committee will subject an appropriate number of the applications for admission to close, professional scrutiny."

Social Security Administration said, "All admissions approved by the utilization review committee will be certified by the committee for a *specific duration based on appropriate percentile of past data (or other data acceptable to the Secretary)*. Where the committee does not approve the admission, the attending physician and the beneficiary are to be notified immediately, *ie*, within 24 hours.

The Social Security Administration said that intermediaries would conduct on-sight reviews to "verify that pre-admission certifications and subsequent reviews are made timely and conscientiously." Carriers would be required to exchange information to identify "potentially aberrant patterns of service and to take appropriate corrective action." □

## Date and Place Set For OSMA Annual Meeting

For the first time in history, Oklahoma's three major statewide medical meetings will be consolidated into a joint convention designed to meet the postgraduate education needs of all state physicians. Scheduled for the Myriad Convention Center in Oklahoma City, the giant medical meeting will be held May 13th through 15th, 1974.

The Oklahoma State Medical Association, at the direction of its House of Delegates, has joined with the Oklahoma City Clinical Society and the Oklahoma Academy of Family Physicians to sponsor the event. Each of the three organizations has designated this as their annual meeting.

Educational programs for all physicians and other health professionals will take place in the beautiful new Myriad Convention Center located in downtown Oklahoma City. The newly refurbished Skirvin Plaza will serve as convention headquarters hotel.

A special joint committee of the three or-

ganizations chaired by Kent Braden, MD, Oklahoma City, is working out the particulars of both the business and scientific aspects of the program. Other members of the committee include Casey Truett, MD, Norman, and Samuel Wheeler, MD, Oklahoma City, representing the OSMA. Leonard Diehl, MD, Oklahoma City, and Marion Wagnon, MD, Del City, will represent the Academy, while the Clinical Society is represented by Doctors Braden and Arnold Nelson, Midwest City.

In addition to the usual scientific programs offered by each of the three organizations, the 16 organized medical specialty groups in the state have been invited to hold their annual business and scientific meetings at the same time in the Myriad.

In order to expand the meeting and enhance its professional attractiveness, all of

the organized allied health professional groups have been asked to hold their business and scientific meetings during the convention. This includes both the RN and LPN associations, Physical Therapists, Inhalation Therapists, Occupational Therapists, Medical Assistants, Dietetic Association, Oklahoma Cytologists, Medical Technologists, Medical Record Association, Physicians Associates, Clinic Managers Association, Nurse Anesthetists, Radiologic Technicians, Operating Room Technicians, Operating Room Nurses Association, and the Oklahoma ACOG Nurses.

It is hoped by the joint steering committee that at least 100 exhibitors can be enticed into displaying during the convention. The income from the exhibitors will pay for the convention itself. The total possible attendance at the three-day meeting could be as high as 1,200 to 1,500 physicians and a similar number of allied health professionals. □

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## Strong Names Councils and Committees

C. Riley Strong, MD, President of the Oklahoma State Medical Association, has released a tentative list of his appointments to the OSMA Councils and Committees.

Standing committees and councils are

### OSMA STANDING COMMITTEES

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Floyd F. Miller, MD, Tulsa (2 years)  
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Kenneth W. Whittington, MD, Bethany (3 years)  
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Donald R. Resler, MD, Oklahoma City, (3 years)  
Samuel A. Wheeler, MD, Oklahoma City (3 years)  
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Paul H. Rempel, MD, Enid (2 years)  
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Leo E. Yates, MD, Oklahoma City (3 years)

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C. S. Lewis, Jr., MD, Tulsa  
G. Rainey Williams, MD, Oklahoma City  
Oliver H. Patterson, MD, Sapulpa  
Wendell L. Smith, MD, Tulsa

established in the OSMA Bylaws, while special committees are designated by the President to carry out specific functions under the jurisdiction of appropriate councils.

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M. Boyd Shook, MD, Oklahoma City  
Billy Dale Dotter, MD, Okeene  
Earl M. Bricker, Jr., MD, Oklahoma City  
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## Congressional Delegation Rated

The three major agencies that annually evaluate, by their own criteria, the voting records of every member of Congress are the Americans for Constitutional Action (ACA), Americans for Democratic Action (ADA), and the AFL-CIO Committee on Political Education (COPE).

From their own point of view, each agency grades the Congressmen from 0 to 100 as to whether they are conservative . . . for the ACA . . . liberal . . . for the ADA or lean

toward labor union points of view . . . for COPE.

Of the eight members of the Oklahoma Congressional Delegation, three have not yet been graded. The time in office of Senator Dewey Bartlett, and Congressman Jim Jones and Clem McSpadden has not been long enough to allow their evaluation.

The ACA bases its evaluations on votes which in its estimation have a significant bearing on the preservation of the spirit and principles of the constitution. They tend to rate high those who support a strong de-

fense posture and oppose what the organization considers excessively costly social programs, unneeded federal intervention in the private economy and erosion of state's rights. ACA ratings are accumulative, on Senators since 1955 or since the start of their first term and on House members since 1957 or since the start of their first term.

ACA ratings for Bellmon and Happy Camp were high, 72 and 87 respectively, with John Jarman coming in with a 68. Tom Steed rated 32 points while Carl Albert was given only 6.

ADA assigns each member of Congress a "liberal quotient," defined as the rating of a member's liberalism. High 88 ratings go to those who favor lower defense spending, and who in ADA's view have made "committed efforts for welfare reform, civil rights and environmental improvement." ADA does not issue cumulative ratings and the ones given are on ADA selected issues in the second session of the 92nd Congress.

ADA didn't give any Oklahoman a very high rating, Carl Albert had 31 while Tom Steed only had 19. Henry Bellmon was given 10, John Jarman 6 and Happy Camp rated 0.

COPE states that the issues on which it rates members of Congress deals with jobs and worker's "rights." The COPE rating differs from the ADA and ACA in that they are computed from what it considers a right or wrong vote; the rating then is a percentage of "right" votes. COPE ratings are cumulative since 1947 or the Congressman's first term. The highest COPE rating was given to Carl Albert, 86. He was followed by Tom Steed with 68. John Jarman was rated 26, Henry Bellmon, 21 and Happy Camp 4. □

### Three New AMA Publications Available

Free clinics, health outreach, and health care for the poor are the subjects covered in three new AMA pamphlets.

The three new pamphlets are available free from the AMA's Department of Community Health.

"Statement On Free Clinics 1972" is a two-page publication of the November 1972 AMA House of Delegates statement regard-

ing the operation of the so-called "free clinics." It outlines the recommended attitudes and actions to be taken by organized medicine in recognition of the free clinic movement.

"Statement on Health Outreach" is another two page brochure outlining the AMA's 1972 House of Delegates action with regard to the so-called "outreach worker (known by many titles, such as health aid, health advocate, community aid, community representative, health agent, family health worker, health street worker, and ombudsman)." This statement says that such a person "is an important component of the health care team." The statement goes on to encourage all medical societies to use health outreach personnel in "all appropriate community health care delivery settings."

"Committee on Health Care of the Poor Progress Report" is an eight page pamphlet detailing the committee's study into health and health related problems of the poor. Thirty-two specific examples are listed, with appropriate comments on each. Such subjects as lead poisoning, black lung, limited recreational activities, limited educational system, lack of continuity in health care services, etc. are cited. The committee stated that "until there is a total effort directed toward improvement of overall quality of life for those who are poor" the health care problem will continue unabated in spite of the best medical clinical efforts.

All three pamphlets can be ordered from the Department of Community Health, in care of the American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610. □

### Medicare Claim Forms Available

Aetna Medicare Claim Administration has announced a new system for the distribution of Medicare claim forms. Briefly, each state physician will be asked to estimate his needs for a six-month period.

This amount will be shipped automatically each six months.

A *Medicare News* letter explaining the new method will be sent to all physicians by August 30th. It will contain a pre-stamped, return-addressed card, for the six-month estimate. □

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## Deaths

### KILLIS C. REESE, MD 1893-1973

An 80-year-old, Tulsa pediatrician, Killis C. Reese, MD, died June 3rd, 1973. Doctor Reese had practiced in Tulsa since 1925 and in 1971 was named one of three "Doctors of the Year" by the Auxiliary to the Tulsa County Medical Society. In addition, the mayor of Tulsa proclaimed "Doctor Killis Reese Day" on February 14th of this year, honoring the physician for his service to the community.

A native of White Mounds, Texas, Doctor Reese was graduated from the Tulane University School of Medicine in 1923. He was a Fellow of the American Academy of Pediatrics and a member of the American Board of Pediatrics. Doctor Reese was a Life Member of the OSMA.

### PAUL L. GROSSHART, MD 1902-1973

Paul L. Grosshart, MD, retired Tulsa physician, died May 25th, 1973. A 1931 graduate of the University of Tennessee College of Medicine, Doctor Grosshart began his practice in Tulsa in 1932. He retired in 1951 following an accident.

Doctor Grosshart was a member of the Southwestern Surgical Congress and had been presented a Life Membership in the Oklahoma State Medical Association in 1952.

### FORREST P. BAKER, MD 1889-1973

A long-time Talihina physician, Forrest P. Baker, MD, died May 19th, 1973, in McAlester. Born in Hot Springs, Arkansas in 1889,

Doctor Baker was graduated from the University of Arkansas School of Medicine in 1921. For nine years he was resident physician at the Arkansas State Tuberculosis Sanatorium. He then moved to Talihina where he served as superintendent and medical director of the Oklahoma State Tuberculosis Sanatorium. He retired in 1966.

A member of the American College of Chest Surgeons, Doctor Baker was presented a Fifty Year Pin from the OSMA in 1967.

### IRA TOM PARKER, MD 1932-1973

A well-known, Oklahoma City neurologist, Ira Tom Parker, MD, died June 21st, 1973. A native Oklahoman, Doctor Parker was graduated from the University of Oklahoma College of Medicine in 1958. Following residency training in internal medicine and neurology, Doctor Parker established his practice in Oklahoma City. He was a member of the American College of Physicians and served on the State Board of Medical Examiners.

### HAROLD G. NELSON, MD 1916-1973

A Stillwater physician since 1949, Harold G. Nelson, MD, died June 22nd, 1973. Doctor Nelson, 57, received his medical degree from the University of Kansas School of Medicine in 1945. He served as Director of the Division of Epidemiology with the Kansas Board of Health before moving to Stillwater. He was a member of the Alpha Omega Alpha. □

## Book Reviews

**DIABETES MELLITUS:** Diagnosis and Treatment, Volume III. Co-edited by Stephan S. Fajans, MD, and Karl E. Sussman, MD. Cloth, 407 pp. American Diabetes Association, Inc. \$5.75

This 1971 publication is called Volume III. This designation is somewhat misleading. The American Diabetes Association sponsored a "Volume I" in 1963, and a "Volume II" in 1967. Because they did not wish to leave the impression that these previous publications had been completely superseded, the most recent publication bearing this title was labeled "Volume III." But this new book is in itself a rather comprehensive guide in the field of clinical diabetes. The utility of Volume III does not require that the reader have the first two volumes. While the scope is quite broad, the depth of each of the 61 short chapters is limited. The intention here is to provide the reader with a very brief review of each aspect of diabetes together with a list of recent well-chosen references in each of these fields.

The book does cover the same ground as the more detailed books edited by Marble (Joslin's book), and by Ellenberg. These latter texts are recent and very good, but they are much more expensive. In the book edited by Fajans and Sussman there are 407 pages but they are small and the book is light. In a few of the areas where there is some uncertainty or disagreement among the authorities of the field, two different versions are presented of the same subject. This strategy has much to recommend it. There are more than 70 different contributors including authorities from both the United States and abroad. Although some basic science background is covered, the book is written with the practicing physician in mind. The book will be useful to internists and family practitioners, and certain of the chapters will be of interest to specialists in other fields (pediatrics, obstetrics, surgery, etc). *Kelly M. West, MD.*

**RISKS IN THE PRACTICE OF MODERN OBSTETRICS.** Edited by Silvio Aladjem, MD, assistant professor, Department of Reproductive Biology and Obstetrics and

Gynecology, Case Western Reserve University School of Medicine, Cleveland, Ohio. Cloth, 304 pp, with 74 illustrations. Saint Louis: The C. V. Mosby Company, 1972. \$29.50.

This book represents a collection of offerings from 15 separate authors presented in 11 chapters, and an epilogue. The risks of modern obstetrics are broadly covered with discussion of risks facing the embryo, fetus, infant and mother, capped by the closing chapter discussing medicolegal risks incurred by the obstetrician and hospital in obstetrical practices.

The initial chapter is a strong beginning and probably the high point of the entire book. Written by Charles P. Douglass, MD, University of London, this chapter discusses "prenatal risks: an obstetrician's point of view." Beginning with instructions to the fetus on selection of the proper mother and avoidance of adverse environmental conditions, Dr. Douglass brings into sharp focus the ever intensifying demands for proper prenatal care of *the fetus* and does so in the lucid and enjoyable style so often typical of our English colleagues. He emphasizes the need for the obstetrician to recognize high risk pregnancy whether associated with genetic or environmental adversities. Of special merit are admonishments to the modern obstetrician to recognize and properly manage those pregnancies at high risk for fetal malnutrition with resulting "low weight for dates" or "high weight for dates" infants. The following four chapters continue to deal with prenatal risks including timely discussions of fetal pharmacology and prenatal genetic evaluation. Though some redundancy is found, these chapters provide a comprehensive and informative review of prenatal risks to the fetus and mother.

Chapters dealing with enhancement and induction labor and infertility are complete and conventional discussions of risks which should be familiar to all physicians dealing with these areas. Appropriately, special emphasis is given to necessary steps to minimize the serious risks incurred with ovulatory stimulants. In the discussion of therapeutic abortions the Japanese author, Yukio Manabe, continues his crusade against

hypertonic saline and for the metureyter and 0.1% rivanol-catheter methods in late abortions. A chapter on endocrine-deficient pregnancies supports the commonly accepted, but yet to be documented as effective, practice of hormonal supplementation in threatened and habitual abortions. The book is rounded out by an erudite discussion of feto-placental studies in experimental animals and an informative review of legal risks involved in the practice of obstetrics.

Unfortunately the cost of this book (\$29.50) will discourage some prospective buyers. Nevertheless those who read it will be better versed in the rapidly expanding knowledge necessary to provide optimum care for the fetus and mother. *Gordon K. Jimerson, MD*, Assistant Professor, Department of Gynecology and Obstetrics, University of Oklahoma Health Sciences Center.

#### CURRENT CONCEPTS IN RADIOLOGY.

Edited by E. James Potchen, MD, Professor, Department of Radiology and Chief, Diagnostic Radiology, Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, Missouri, Cloth 346 pp. with 502 illustrations. St. Louis: The C. V. Mosby Company 1972. \$24.75.

The editor has, with the help of a number of distinguished radiologists, brought together in one handy format a selected number of topics pertinent to the daily practice of up-to-date radiology. Most of the information contained in this volume has over the past several years found its way into various journals. To the radiologist who assiduously follows the specialty literature, "Current Concepts in Radiology" will only provide a well-thought-out version of what he has learned through integration of information gleaned from many sources. To the less compulsive among us, and particularly to the radiologist in training who has not had the opportunity to peruse the literature of the recent past, this book will provide an up-to-date exposition of concepts, many of which, though relatively recent, have become fundamental to the practice of radiology.

Of the thirteen headings listed in the table

of contents, five deal with the chest (pulmonary or cardiac). Four essays are related to special procedures (infection technique, contrast agents, selective renal or serigraphy and intracranial mass lesions). Among topics in nuclear medicine, organ blood flow and tumor detection are covered. The last article reviews staging of upper airway carcinomas. Every radiologist should be cognizant of the factors limiting roentgen interpretation. These are reviewed in some detail in the first article.

The illustrations are of excellent quality, and to the point. This book should be successful for it provides an up-date to the classical textbooks of radiology. Its perusal is highly recommended to those who by profession or by inclination are interested in the topics it covers. *J. J. Vanhoutte, MD*, Pediatric Radiologist, Children's Memorial Hospital, Oklahoma City, Oklahoma.

#### APPLIED PSYCHOLOGY IN DENTISTRY.

By W. R. Cinotti, DDS, Professor of Prosthodontics and Assistant Chairman, Department of Prosthodontics, New Jersey Dental School, Jersey City, New Jersey; et al. Second Edition. Hard Cover, 274 pp. The C. V. Mosby Company, 1972. \$15.00.

It has been traditional for the dentist to discuss the abnormal behavior of patients on an informal basis. Only recently have dentists concerned themselves with the opportunity of training in the behavioral sciences. However, courses dealing with the psychology of human behavior often fall short of their goals because the course or textbooks referred to often overindulge the practitioner in concepts of the behavior of patients with little attention directed at practical application and understanding of the concepts. This book, "*Applied Psychology in Dentistry*," attempts to overcome that problem by increasing the practitioner's awareness and understanding of individuals with exaggerated or truly abnormal mechanisms of psychological defense. It does not attempt to include all facets of the exaggerated defense mechanisms or behavioral aberration, but rather exposes the reader to more recent behavioristic theories and other non-psychoanalytic theories. It consistently relates them to discussions of prac-

tical procedures encountered in the dental office. It also devotes considerable attention to psychological applications as required within the various specialties in dentistry. The overall theme of the book stresses that the dentist must possess a basic knowledge of the fundamentals of psychology and then use it in service to patients by also expanding that knowledge. Quite appropriately, the book is divided into three parts. The first part provides a brief general orientation in psychology by explaining what psychology is and expanding these definitions into an understanding of the history, personalities, and objectives of basic psychological principles. Part I tends to assume a stance which might properly be called a phenomenology of human behavior. It carefully points out and stresses that in order to develop an understanding of the behavior of other persons and ultimately of our own, it is necessary for us to develop a keen awareness of not only what people say verbally but also what they say non-verbally. It carefully assesses the problem that it is important to understand some of the common psychological and aberrational mechanisms of human behavior so that the dentist will have a better understanding of a patient's behavior.

The second part of this book includes discussions of practical procedures in patient management, office setup and procedures, and presentation of the treatment plan to include patient-motivation. Although some areas in this portion tend to become dogmatic or too response-oriented, it nevertheless incorporates some of the principles and concepts alluded to in Part I and demonstrates how they may be employed in the dental office. Wherever possible, alternate approaches are presented and evaluated. Although the application of some of the concepts toward patient motivation might be more valuable to a recent graduate, the reading of this book would serve to refresh some of the concepts of practice and office management and patient motivation to seasoned practitioners.

Part III contains contributed chapters which deal with the psychological application to the various specialties in dentistry. However, these chapters are presented by various specialists and do not necessarily coincide with the view of the authors. Part III

is quite informative and enables the reader to become acquainted with varied approaches with patients receiving specific treatment.

In summary, this book becomes an excellent addition to the library of all practicing dentists and physicians. Individuals with even a limited background in the behavioral sciences will find this book easy to read and understand. Its format presents in clear concise manner the complexities of psychological and functional features (and problems) associated with dental practice. It draws attention to certain basic functions and their possible effects of psychological symptomformation. Dentists must not fall behind the members of the other profession in making theoretical contributions to knowledge of human motivations and behavior. The book is introductory in nature and must be supplemented by other readings to gain the full impact of the concepts presented. However, references are provided at the end of each chapter which efficiently guides those who desire more intensive readings to expand their knowledge and broaden their background in the intricacies of psychological behavior and mechanisms. *Stewart Shapiro, DMD, MScH, Chairman and Associate Professor, Division of Community Dentistry.*

**MEDICAL PHARMACOLOGY.** By Andres Goth, MD, Professor of Pharmacology and Chairman of the Department, The University of Texas Southwestern Medical School, Dallas, Texas. Sixth Edition. Hardbound, 704 pp, 119 illus. St. Louis: The C. V. Mosby Company, 1972. \$16.50

Medical students will be happy to learn they have a friend in Dr. Goth's sixth edition of *Medical Pharmacology*. He presents the subject of pharmacology in a concise form, without frills, allowing the reader to understand drugs, their actions and metabolism, as it will relate to one's clinical experience. The reader does not obtain the breadth and depth of pharmacology, as with Goodman Gilman, but easily secures a good foundation. Dr. Goth writes smoothly and intelligently. The format is pleasing to the eye and the references after each chapter are pertinent and up-to-date.

Each chapter gives enough physiology to permit an understanding of drug action, and

is followed by a well-rounded analysis of the prototype drug, metabolism, toxicity and medical efficacy. Related drugs are then considered in a briefer form. In general, the detail and amount of information given about a drug is proportional to its current acceptance in medical therapeutics. As is usual in textbooks of pharmacology, dosages of drugs, or administration of drugs in certain disease states, and clinical pharmacology, are handled with ambivalence. Digitalis dosage and the schedule for administration is routinely handled well, and in status epilepticus there is no dosage schedule given for phenobarbital, a drug used frequently. Naturally this is understandable since drug dosages may not have any application in a course of pharmacology, greatly hindering the student's memory, and pharmacologists are not necessarily clinicians. But it does limit the book's usefulness for later student reference, forcing him/her to turn to a less biased source.

The chapters on drug interactions and poisons - antidotes are welcomed, as well as the very useful table in the appendix on therapeutics, toxic and lethal blood levels of drugs.

Granted, this is a personal bias, but I believe the scattered statements about drug effects on the fetus, newborn and child would make more impact on the student if collected into one chapter.

In general, the book's content and format are well designed for the medical student and I would certainly feel that this is the textbook of choice for a student's first contact in pharmacology. *Joseph Luciano, MD*, Department of Pediatrics, Children's Memorial Hospital, University of Oklahoma Health Sciences Center.

**BIRTH AND BRAIN DAMAGE.** Cyril B. Courville, MD, Pasadena, California: Margaret Fransworth Courville. 408 pages. \$20.00.

This book, authored by a distinguished physician and published privately by his wife following his death, is disappointing in many respects. Dr. Courville adopted the

thesis that asphyxia at birth is the most important cause of brain damage. He writes:

It represents the basic causes of cerebral palsy, mental deficiencies and epilepsy. It should establish the fact that asphyxia at the time of birth is the major cause of crippling brain disease from early life estimated by me as  $\frac{2}{3}$  to  $\frac{3}{4}$  of all cases (conservative estimate).

The book, which is divided into 18 chapters, deals almost exclusively with some findings in the brains of children or adults with cerebral palsy and other neurological conditions. In many instances, the birth history of the patient is either not known or is stated "thought to have had birth injury." A few brains from newborn infants are shown in illustrations, but there is little evidence that the material has been examined histologically. Without such an examination, a pathologic diagnosis of hypoxia cannot be substantiated. The remainder of the text considers the more controversial relations of anoxia to demyelination and diffuse sclerosis. Some of the author's theses about etiology of central nervous system disease such as the relation of Schilder's disease to perinatal anoxia are controversial at best. The illustrations are rather poorly produced and often do not coincide with the description in their legends.

The book also contains a list of Courville's published papers, many of which are valuable. *Harris D. Riley, Jr., MD*

**SYNOPSIS OF PATHOLOGY.** By W. A. D. Anderson and T. M. Scotti, 8th edition, cloth, 1,076 pp., 430 illus., St. Louis: The C. V. Mosby Company, 1972. \$13.95.

This is the eighth edition of this book. It is open to question whether a book of this length - 1,076 pages - can be considered a synopsis. This edition differs little from the seventh one except that references are now listed at the end of each chapter, a distinct improvement. No new chapters have been added. The material has been presented concisely. The 430 illustrations are good. Medical students will find it useful. *Harris D. Riley, Jr., MD* □

## Miscellaneous Advertisements

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To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The anti-anabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

**PRECAUTIONS:** If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal disease, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

**ADVERSE REACTIONS:** Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

**Skin:** maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

**Renal toxicity:** rise in BUN, apparently dose related (See **WARNINGS**).

**Hypersensitivity:** urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

**Blood:** hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

**USUAL DOSAGE: Adults**--600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, 'Randomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Randomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

**Children**--3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

**Concomitant therapy:** Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

**SUPPLIED:** 'Randomycin' (methacycline HCl): 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 6/73



WALLACE PHARMACEUTICALS  
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## Summer Complaints

Maybe it's a result of future shock or the approach of dog days or the travail of Watergate, but I am much too unsettled to be able to write comprehensively about any specific subject. The usually vacant compartments of my mind are filled with the ill-wind-blown trash of current events.

For example, I'm damned mad about the continued control of health care prices. I acknowledge the need for price controls throughout our economy but what I can't understand is the absence of controls on such things as dividends, interest rates and insurance premiums. I just can't see why our nation's cottage industry must be rigidly controlled while the giant money manipulators are allowed free reign. I'm sure someone will point out that they're already so controlled by state and federal rules and regulations that it's all they can do to keep their heads above water now. Pity.

It bothers me too, that we are expending so much of our precious health care resources on the domiciliary needs of the aged infirm. We are inflicting cruelty in the name of compassion; squandering tribute on yesterdays and neglecting tomorrow. There is a better way but it is politically impossible. Love cannot be created by an act of legislation.

It irritates me that I spend as much time

on paperwork as I spend caring for patients; that I cannot appraise the effectiveness of a drug that has been decreed ineffective by a clutch of non-practitioners; that I can't express my gratitude to an outstanding employee by awarding a merit raise in salary; that I can't find out what the true per diem cost is for patients in government-operated hospitals . . . or what the true administrative costs of medicare are; that we permit students from foreign nations to stay in this country following their period of training, when they are so desperately needed at home; that we have so many peripatetic professors in our medical centers and so few teachers in the clinics and at the bedside; that the politicians and media people wail about the shortage of physicians yet remain so silent and inert when our training facilities are bankrupted by rampant inflation and token appropriations; that no one is telling the truth loudly enough or effectively enough about the quality and quantity and availability of health care in America.

Fact is, I'm terribly frustrated because of my own ineffectiveness and inability to alleviate these frustrations. I realize that I must act if I am to help change things and yet, all I do is write. I am only a pamphleteer and I wish I were a knight. Action is what I really need but, in the meantime, maybe a little heat powder will help. Has it been taken off the market yet? *MRJ*



Well, here we go again — on PSRO! On July 31st the officers of the Oklahoma State Medical Association met with the officers of the Oklahoma Osteopathic Association. This was a very congenial meeting. Its purpose was to discuss area designations of peer review for Oklahoma.

Both organizations were thinking the same way—ONE PSRO FOR OKLAHOMA. On August 1st all of us met with the Dallas HEW PSRO people, William A. Cherry, MD, Kenneth Schneider, MD, and several others.

Both the OSMA and the OOA recommended one PSRO and there was no dissension from anyone that was at the meeting. During the hearing, Doctor Cherry stated that he would strongly recommend one PSRO for Oklahoma. I feel that by the OSMA and OOA standing together we will be able to have a united front on PSRO.

Apparently the rules and regulations for PSRO will not be published until October or November. Then the OSMA must take steps on PSRO. (We still have no formal position regarding participation or non-participation.)

I am finding that being your President is a very demanding job, but extremely interesting. I have been appointed to a new cancer committee by Governor Hall. Its purpose is to coordinate diagnosis, treatment and follow-up of cancer with the hometown physicians becoming more involved in the

care of cancer so that the patient may have the security of home and friends. This program will be announced at a special meeting on September 10th in the Blue Room at the Capitol Building.

If you have not sent in your questionnaire from Doctor Ben Humphrey on cancer treatment, referrals, etc., please do so as this survey is needed to help plan the cancer treatment program mentioned above.

Be sure to mark your calendar for the Oklahoma Medical Summit May 13th, 14th, and 15th, 1974. Plan ahead now to attend this summit as it will be one of the best medical programs, entertainment, and educational meetings you have ever attended. It will be the biggest medical meeting Oklahoma has ever had—and is sponsored by the Oklahoma State Medical Association, the Oklahoma Academy of Family Physicians and the Oklahoma City Clinical Society.

I noticed this drawing and comment in the Florida Academy of Family Physicians Journal. Please take note of it.



**Is Your Thinking Contemporary ?**

Sincerely,

*C Riley Strong M.D.*

## The Use And Abuse of The Psychotropic Drugs

ALLEN J. ENELOW, MD

*Significant danger, including risk of habituation, accompanies the use of psychotropic drugs. In the treatment of neurotic individuals good communication between physician and patient, not tranquillizers, is the treatment of choice.*

THE THREE MOST commonly prescribed classes of drugs in the United States today are the antibiotics, the psychotropic drugs, and the vitamins. It might be said with equal justice of all three, that the indications for their use have been broadened in practice far beyond what is supported by evidence.

I would contend that this is especially true of the psychotropic drugs, and in particular of the minor tranquilizers, the barbiturate and non-barbiturate sedatives, and the amphetamine-like stimulants. While all of the psychotropic drugs can be misused it is in these groups that misuse is most common.

One often reads of the growing drug abuse

and habituation problem among adolescents. The fact is that the largest single group of drug abusers and drug habituated individuals is not the adolescents at all, but the housewives.

In medicine cabinets everywhere the inquisitive child or adolescent will find the tranquilizers given to his mother because the physician felt that these would make her "more relaxed" or "less tense," and the "speed," or amphetamines given to his mother to curb her appetite so that she can be stylishly slim. Of course, the physician does not refer to this latter class of drugs as "speed." He speaks of the appetite suppressants. Other physicians, mistakenly, see the amphetamine derivatives as "antidepressants" which they are not. There are, as it happens, true antidepressants, but their use too, is perhaps less widely indicated than most physicians recognize.

There are three major groups of psychotropic drugs with which the physician should be acquainted. Their indications, the contraindications to their use, and the ways in which they should not be used should also be known to all physicians.

The group for which there is the most clear indication is the major tranquilizers, the phenothiazines. They are indicated in the

psychotic disorders. They should not be used in neurotic patients, as they tend to produce an unpleasant feeling of detachment or even depression.

Chlorpromazine, the first and still the most useful of these, was first reported to be valuable in the management of psychoses in 1952 by Delay and his associates. Since that time it has been given to more than 50 million patients.<sup>1</sup> Though at first it was hoped that chlorpromazine would cure psychiatric disorders it is now clear that its major value is that it ameliorates certain symptoms in both acute and chronic schizophrenic reactions. It is *not* indicated in the neurotic disorders. Its most useful role is in the management of severely anxious, disturbed, and/or overactive (excited) schizophrenic patients. The dosage can vary from 300 mg a day to as high as 2,000 mg a day, depending on the severity of symptoms. After control of symptoms is achieved and maintained for several months, the dose can slowly be reduced until the maintenance dose is found. If the dose is larger than 200 to 400 mg a day it is necessary to concomitantly administer an antiparkinsonism drug such as benztropine (Cogentin). There is no clinical evidence of tolerance or addiction. Chlorpromazine is a very safe drug. The incidence of jaundice is less than 0.5 per cent. The incidence of agranulocytosis is approximately one in 250,000 cases. When jaundice occurs, it is most likely to occur in the first month of treatment, after which it is very unlikely to appear. Fatalities from chlorpromazine-induced hepatitis are very rare. Only six reports involving 14 cases appear in the world medical literature. Chlorpromazine has been given to many pregnant women without reports of harm to mother or infant.

The Veterans Administration Cooperative Studies in Psychiatry studied 348 schizophrenic men under the age of 56 years who had been hospitalized for two or more years. These patients had been receiving chlorpromazine or thioridazine for three months to two years in dosages ranging from 00 mg to 800 mg a day. In all the patients a stable daily dosage maintained symptomatic control of the psychotic disorder. The patients were randomly assigned to four groups. One

group continued the same daily dosage schedule, the second group received a daily placebo, the third group received their medications every other day instead of daily, and the fourth group received a placebo every other day. By the end of four months 5% of those continuing on drugs had relapsed; 15% on the intermittent schedule had relapsed and 45% of the patients in the two placebo groups had relapsed.<sup>2</sup>

Still another study which indicates the specificity of action of the phenothiazines involves one carried out in nine hospitals where 344 patients were studied. All of these were newly admitted schizophrenic patients whose illness had had a rapid onset with no psychotic illness in the preceding 12 months. While even among the placebo treated group almost half the patients were improved to some extent, 95% of the patients treated with either chlorpromazine (Thorazine), thioridazine (Mellaril) or fluphenazine (Prolixin) improved. There was evidence that the drug did not simply tranquilize but specifically acted to ameliorate schizophrenic symptoms.<sup>3</sup>

Still another study in the series of Veterans Administration Cooperative Studies in Psychiatry indicated that chemotherapy alone (in this instance they used thioridazine) or in combination with psychotherapy was superior to psychotherapy alone in reducing symptoms associated with schizophrenia. There were some very unexpected differential treatment effects. Thus, psychotherapy was superior for relieving tension and reducing somatization; combined psychotherapy and chemotherapy gave the best result in reducing motor retardation and anxiety; while chemotherapy with or without psychotherapy was clearly superior in combatting the following symptoms; withdrawal, conceptual disorganization, mannerisms, grandiosity, hostility, suspicion, hallucinations, uncooperativeness, unusual thought and blunted effect. Curiously, all three were ineffective in ameliorating guilt feelings and depression in schizophrenic patients.<sup>4</sup>

To use the phenothiazine drugs correctly, one must be able to make an accurate diagnosis of schizophrenia. This diagnosis requires the presence of a thought disorder, the classical schizophrenic disorder of mood or effect, and schizophrenic types of relation-

ships with others (overintensity varying with withdrawal and lack of contact).

Another group of drugs which have specific describable and definable effects and clear indications are the antidepressants. These drugs also have contraindications.

There are two groups of antidepressants. The first are the mono-amine oxidase inhibitors, known as MAO inhibitors. This group is characterized by a stimulant effect on the central nervous system, and by an action of short duration. Some of these such as tranylcypromine (Parnate) are dangerous. Parnate, for example, can produce hypertensive crises, and potentiates all other agents affecting the central nervous system making them quite dangerous.<sup>5</sup> But more important is the fact that there is a lack of solid evidence for the usefulness of the MAO inhibitor antidepressants.<sup>6</sup>

The second group is known as the tricyclic antidepressants. The two most well known representatives of that group are imipramine (Tofranil) and amitriptyline (Elavil), though there are others. For these drugs there is solid evidence in a number of studies that they work well on severe depressions of relatively recent onset.<sup>6</sup> However, it must be clearly understood that these drugs do not work on chronic long standing depression, nor are they indicated in the relatively milder reactive depressions that are common in the life of everyone. When a patient is grieving for a lost loved one, there is no necessity to administer an antidepressant unless the grief is of protracted duration. It is much better to let that person work through his grief by talking it out with someone—preferably the physician. Individuals who have suffered losses must have the opportunity to work this through and can be harmed by having the depressive symptoms obliterated with drugs before this can occur.

Another misuse of the antidepressants is in the relatively minor depressions that come with life's disappointments, particularly in late adolescence or in the early twenties. It must be borne in mind that learning to cope with and tolerate anxiety and depression is an important task of living. No one can hope to be totally free of either and the quest for such freedom from pain can only lead to drug abuse.

It is valuable for young people to learn

to work through and tolerate anxiety and depression. This means good communication or rapport between patient and physician. The physician must be able to offer support and counselling. Unfortunately, too many physicians, and their willing disciples among their patients, believe that one must reach for a pill at the first sign of pain. This is daily reinforced by television advertising. It is no wonder that the incidence of habituation to drugs that blunt anxiety or reduce pain is increasing in this country.

Among the most misused drugs in medicine are the so-called minor tranquilizers. Most of these drugs have a depressing effect on the patient and are contraindicated for depressed patients. They are habituating. The commonest one in use is meprobamate. Probably no drug is more misused than this one. Drug dependence and addiction to meprobamate are more common than generally realized and withdrawal symptoms, including convulsions have been observed. Toxicity is not often a problem but skin rash, chills and fever and gastrointestinal disturbances have been reported. Marked drowsiness and ataxia can occur from fairly modest over-dosages. In general this drug should never be given for chronic anxiety nor to patients with a history of drug dependency. Another minor tranquilizer that is widely used is chlordiazepoxide (Librium). This drug is more potent than meprobamate and seems to have similar indications. It is not effective in the major psychoses. Over-dosage produces drowsiness and ataxia. Drug dependence is common and withdrawal symptoms may occur after prolonged use. A fairly common side effect is euphoria and overactivity resembling hypomania. Some patients become ataxic on small doses. The council on drugs of the AMA reported that this drug has no place in the long term treatment of alcoholism, as claimed by the manufacturer.<sup>7</sup>

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*Since his graduation from the University of Louisville School of Medicine, Allen J. Enelow, MD, has been certified by the American Board of Psychiatry and Neurology. He is now Professor of Psychiatry at the University of the Pacific in San Francisco. Doctor Enelow is a Fellow of the American College of Physicians.*

The Medical Letter, June 5, 1964 writes: "Despite repeated and voluminous citations neither meprobamate or chlordiazepoxide have been shown to possess exceptional value in relieving anxiety and its diverse manifestations."<sup>8</sup> This is further supported in the case of chlordiazepoxide (Librium), which in a well controlled double blind study on 43 patients, was shown to be no more effective than a placebo in reducing anxiety.<sup>9</sup> Still another minor tranquilizer being promoted in recent years is diazepam (Valium). This is pharmacologically and chemically related to chlordiazepoxide. It produces common adverse effects of drowsiness, dizziness, fatigue and ataxia. As with chlordiazepoxide, paradoxical reactions such as excitement, depression, stimulation, and hallucinations have been reported. It has been associated with the occurrence of withdrawal symptoms (including convulsions) when its administration is abruptly discontinued after prolonged use. Turbulence and excitement have been reported after the administration of diazepam to psychotic patients.<sup>10</sup>

All of the minor tranquilizers should not be administered to patients who have shown a tendency to abuse drugs. This caution should be applied to the barbiturates also. The findings on the minor tranquilizers give little reason to use them except when the shorter acting barbiturates fail to control acute anxiety. The great difference in cost to the patient is still another reason to try barbiturates first. In the suicidal patient, diphenhydramine (Benadryl) is probably safer than the tranquilizing agents described here and certainly safer than barbiturates. But the first line of treatment in psychoneurotic anxiety is still psychotherapy.

There has appeared, in recent years, a pernicious notion, aided, abetted and supported by the aggressive advertising policies of the pharmaceutical manufacturing concerns, that physicians should stamp out anxiety on its first appearance in their patients. This is a harmful notion. In the first place, anxiety is often the greatest motivation to problem solving in humans. Constructive solutions to conflicts cannot be found when patients are placed in a drowsy state with the use of a chemical tranquilizer as soon as they become

anxious. The physician who uses tranquilizers to stamp out anxiety is doing his patient a disservice and failing to carry out his responsibility to that patient. Far more important is to give that patient the opportunity to talk about conflicts or problems that are producing the anxiety. This takes time, interest, and a good doctor-patient relationship. It is easier, faster, and undoubtedly more economically rewarding to treat patients in briefer periods of time and to abolish their anxiety with drugs (if this can be done at all). Many habitués and psychological addicts have been made this way.

When a patient has anxiety of relatively recent duration which is not paralyzing, he should be given the opportunity to talk about it. In chronic long standing anxiety, a minor tranquilizer may be helpful, though there are safer ones than meprobamate or chlordiazepoxide. An example of a safer, less habituating drug with fewer side effects, though rather expensive, is hydroxyzine (Vistaril or Atarax). In acute anxiety of recent onset which is disorganizing to the patient so that he cannot communicate with you, a short acting barbiturate or chloral hydrate are still preferable to the minor tranquilizers. These should be used only when other things cannot do the job and when psychotherapy cannot be attempted because of the paralyzing effect of the anxiety.

In conclusion, the proper use of the psychotropic drugs requires that the physician be capable of making positive diagnoses of the major psychoses, be able to differentiate these from depression and from non-psychotic anxiety, and be able to discover through careful observation, and interviewing, the hidden or masked forms of depression and anxiety. But more than this, the proper use of these drugs requires that the physician first of all be a physician. This means communication with the patient, the willingness to take the time to become a real person in whom the patient can confide, and a sense of responsibility toward the patient. Otherwise, the abuse of psychotropic drugs by physicians may create individuals habituated to drugs, who are groggy and numbed by chemical substances that reduce their responsiveness to the world.<sup>11</sup>

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Pacific Medical Center, San Francisco, California

**SEVENTEENTH ANNUAL CONFERENCE  
OF THE  
AMERICAN ASSOCIATION FOR AUTOMOTIVE  
MEDICINE**

Physicians interested in the development of highway and transportation safety are urged to attend the 17th annual conference of the American Association for Automotive Medicine to be held in Oklahoma City November 14th-17th. The general purposes of the association include the encouraging and sponsoring of laws and regulations to improve the standards for licensing of drivers, to encourage the use of appropriate protective devices in motor vehicles to increase safety, to support and encourage research in automotive safety, and to encourage and promote the growth and dissemination of new knowl-

edge in the field and traffic and vehicular safety.

Scientific sessions during the 17th annual conference will include such topics as Emergency Medical Care, Medical Evaluation of Highway Injuries, Medical-Legal Aspects of Automotive Medicine, Alcohol and Drugs, Medico-legal concerns, and Pedestrians, Bicycle, Motorcycle accidents.

Registration inquiries should be sent to the American Association of Automotive Medicine's general office, 801 Green Bay Road, Lake Bluff, Illinois 60044. □

*NOVEMBER 14th-17th, 1973 • Hilton Inn West • Oklahoma City, Oklahoma*

# The Impact of Changing Pesticide Usage on The Medical Community

ANNE R. YOBS, MD

*Pesticide poisoning, infrequently seen in the past, will probably become more frequent as more acutely toxic but less persistent pesticides are used in larger amounts and more frequent applications.*

*Prevention of serious consequences in poisoned patients depends on prompt correct diagnosis and adequate treatment.*

THE USE of chemical substances has been increasing steadily in the modern world, filling man's physical environment with a myriad of substances which are potentially toxic to man himself or to parts of his environment. In trace amounts in the human body, some substances have no demonstrable effects, and others are essential to life; in larger amounts, these same substances may be toxic.

Similarly, the number and usage of pesticide products has increased significantly during the last 30 years with the availability of organic chemicals for convenient, effective, and economical pest control in a wide variety of situations. Benefits have included increased food production and control of disease vectors and nuisance pests. At first, relatively little effort was directed to safe application and controlled use of

these chemicals, and knowledge of possible harmful side effects did not keep pace with the development of chemical pesticides. Beginning in the late 1940's, evidence developed that certain chlorinated hydrocarbon compounds, such as DDT, accumulate in fatty tissues of fish, birds, other wildlife, and man. Later studies showed that excessive concentrations of these pesticide residues have adverse effects on reproduction, physiology, and behavior in some birds and represent a threat to wildlife. The hazard to future generations of man is not known, but results of controlled experiments in laboratory animals indicate a need for further investigation.

The general use of DDT in this country was cancelled by the US Environmental Protection Agency effective December 31, 1972, following several years of intensive review and inquiry into the environmental and human health hazards related to the use of this chemical. This administrative action will necessitate a change to other available chemicals, such as organophosphates and carbamates, which have been marketed for a number of years. They are more easily broken down in the environment and in biologic systems and therefore pose less risk of long-range contamination and buildup in the environment. However, many of the chemicals which will be substituted for DDT are highly toxic and present greater short-range acute hazard to the user and to others coming in

direct contact with them. Since these replacement chemicals are less stable, more frequent application will be required to maintain the same level of pest control, thereby further increasing the hazard—particularly to untrained users.

Project Safeguard, an intensive educational program directed to farmers at risk in 14 states, is a joint effort of the US Environmental Protection Agency, US Department of Agriculture, and the State Cooperative Extension Services. The target states include those southern and southeastern states where the greatest use of DDT has occurred in recent years in the treatment of their major crops; cotton, peanuts, and soybeans. A special effort is also being made to alert physicians and emergency health personnel in these states to the potential problem and to review diagnostic and treatment measures with them.

Everyone engaged in health delivery should become familiar with all aspects of pesticide poisoning including prevention, populations at risk, signs and symptoms, diagnostic confirmation, and treatment. Review of all pertinent details is not possible within the space allotted, but a few salient points should be emphasized.

Pesticide poisoning is preventable if the user reads and observes all label instructions regarding usage, storage, and disposal. At risk are not only the farmers or applicators, but also their helpers and families.

Pesticides may be absorbed by ingestion, by inhalation, or through the intact skin as a result of negligence, accident, or deliberate action. Absorption of certain organophosphates is at least as effective following dermal exposure as after ingestion. Dermal exposure is of major importance in occupational poisonings, accounting for 77.5% of the cases of occupational poisonings by industrial and agricultural chemicals in California in one year. (Kay, 1964) There is wide variation in the toxicity of individual compounds within a given group of pesticide chemicals such as the organophosphates. Malathion has a low toxicity, while Temik, TEPP, and ethyl parathion have considerably higher toxicity. Both the organophosphates and the carbamates inhibit acetylcholinesterase; organophosphates are permanent inhibitors while

carbamates are reversible inhibitors. Illness results from accumulation of excess acetylcholine and, while similar, may vary in intensity from compound to compound and group to group. Signs and symptoms include sweating, headache, giddiness, miosis, tearing, increased salivation, excessive respiratory tract secretions, nervousness, blurred vision, weakness, nausea, vomiting, abdominal cramps, diarrhea; subsequent symptoms include chest discomfort, cyanosis, papilledema, muscle twitches, and, in most severe cases, convulsions, coma, and loss of reflexes and sphincter control. Miosis is commonly present, but mydriasis may occur; in either, pupils are nonreactive. (Hayes, 1963) If symptoms begin more than six hours after the last known exposure, the illness is probably due to some cause other than pesticides. The end of exposure may be difficult to determine, especially if the patient does not practice good personal hygiene or continues to wear contaminated clothing or protective equipment.

Rapid delivery of correct treatment in suspected cases of pesticide poisoning is of primary importance. Treatment consists of *support, decontamination, and specific antidotes* where available. Support therapy includes, most importantly, administering artificial respiration when indicated, while maintaining a free airway. Mechanical means may be used if available; if not, mouth-to-mouth resuscitation should be applied. Oxygen should be administered when cyanosis or severe respiratory difficulty is present. Sedatives may be used with caution to combat hyperexcitability or convulsions; sodium phenobarbital is the drug of choice because of its rapidity of action but should be used with care when there is respiratory impairment. After continuation of respiration has been assured, decontamination of the patient should

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A 1953 graduate of Duke University School of Medicine. Anne R. Yobs, MD, is presently Chief, of the Training and Education Branch of the United States Environmental Protection Agency in Chamblee, Georgia. Doctor Yobs is a member of the American Chemical Society and the Southern Medical Association.

## Pesticide / YOBS

follow promptly to end exposure to the toxic chemical. Depending on the circumstances of exposure, decontamination may include one or more of the following: removal of contaminated clothing, washing of skin and hair, rinsing of eyes, gastric lavage or induction of vomiting, and eventually evacuation of the intestinal tract.

Specific antidotes are not known for all pesticides, but antidotes of considerable value are available for use in organophosphate poisoning. They are safe enough to administer cautiously on the basis of symptoms before the diagnosis is firmly established. Favorable response to the antidote helps confirm the diagnosis. (Absolute confirmation requires laboratory analysis of proper samples to prove that a sufficient amount of the chemical was in the body at the time of onset of illness.)

Atropine sulfate is a physiological antidote which does not affect the inhibited cholinesterase but blocks the action of acetylcholine on parasympathetic receptors. Atropine sulfate should be administered to adults in doses of two-four mg intravenously as soon as cyanosis is overcome and should be repeated every five-ten minutes until signs of atropinization appear. In all cases where atropine treatment is indicated, a mild degree of atropinization should be maintained for 24 hours and for 48 hours or more in severe cases. Doses for children should be proportional to weight, about 0.05 mg/kg body weight. Patients poisoned by organophos-

phates show an unusual tolerance to atropine because of the accumulation of excess acetylcholine.

Pralidoxime chloride (2-PAM chloride) (Protopam® Chloride, Ayerst Laboratories) is a specific antidote for poisoning by organophosphates, acting to break the bond between the enzyme and the pesticide metabolite. Treatment is more effective if started early and should always be given in conjunction with atropinization. The dose is one g for an adult and 0.25 g for infants, given slowly and preferably by infusion for 15-30 minutes. If infusion is not practical, the dose may be given slowly by IV injection as a 5% solution in water over *not less than two minutes*. If the first dose produces improvement, it may be repeated after an hour. *2-PAM is contraindicated in suspected carbamate poisoning.*

Patients who require treatment with antidotes should be watched continuously for not less than 24 hours, because serious and sometimes fatal relapse can occur due to continuing absorption or dissipation of the effects of antidotes.

A pamphlet entitled "Diagnosis and Treatment of Poisoning by Pesticides" developed by Project Safeguard discusses pesticide poisoning in more detail and is available in single copies on request to the author.

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U.S. Environmental Protection Agency, 4770 Buford Highway, Chamblee, Georgia 30341.

Watch for further details of the national meeting of the

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Many speakers of national prominence in medical aspects of crash injury and pre-crash illness will be featured on the program.

Watch for more detailed information in **THE JOURNAL**

# Disability Insurance Under Social Security

J. FLOYD MOORMAN, MD

*At this time over three million men, women and children receive social security disability checks every month. These payments total almost five billion dollars a year. July 1, 1973 Medicare protection was extended to persons under 65 years of age who had been receiving disability benefits for at least 24 months.*

WHENEVER A PHYSICIAN is asked to furnish a medical report in connection with a patient's claim for social security disability benefits, it's a reminder that social security is not just for the retired—it also provides important financial help for people who cannot work because of a serious illness or injury. Currently, over three million men, women and children receive social security disability checks every month because someone in the family—usually the breadwinner—is disabled. Their payments total almost \$5 billion a year. In addition, more than 76 million working men and women are insured for disability benefits as a result of their earnings—wages or self-employment—under social security. Beginning July 1, 1973, full Medicare protection was extended to persons under age 65 who for at least 24 consecutive months have been receiving monthly social security benefits because they are disabled.

A person under 65 can receive monthly disability benefits if he has a physical or mental impairment severe enough to prevent him from doing any substantial gainful work for a year or longer. Benefit amounts based upon a person's earnings under social security range from \$84.50 to \$345.50 a month for the disabled worker alone, and the maximum monthly benefit for a disabled worker with a family is \$620.40.

## FROM A SMALL BEGINNING

The original Social Security Act of 1935 provided benefits only for the retired worker. It was not until 1954 when the disability "freeze" provision was added that the law gave some protection to the disabled worker. Under the freeze, years when a worker earned little or nothing because of disability were not counted against him later in deciding if he was eligible for retirement benefits, or in figuring his retirement benefit amount. To be eligible for the freeze, the worker had to have a disability that was expected to be of "long-continued and indefinite" duration.

Two years later, monthly cash benefits were provided for disabled workers aged 50 to 64, and also for the disabled adult sons and daughters of retired or deceased workers if the son or daughter had been continuously disabled since childhood.

Over the years, the program has been further improved. The minimum age limit of 50 for payment of benefits to disabled workers was eliminated; "long-continued

and indefinite" duration was changed so that an insured worker could be eligible if his disability had lasted or could be expected to last for at least 12 months; fewer years of covered employment were required for a young worker to be insured for disability; and benefits were provided for disabled widows (between ages 50 and 60) of covered wage earners. The latest change is, of course, Medicare protection for disabled persons under 65.

#### WHO CAN GET BENEFITS?

Social Security disability benefits can now be paid to:

*\*A disabled worker under 65 and his family, if he has worked under social security for a certain length of time, ordinarily five of the ten years preceding the onset of disability. (Special provisions apply to workers disabled by blindness allowing them to qualify with even less work under the program.) For the worker who becomes disabled before he reaches 31, the work requirement ranges down with age to as little as 1½ years.*

*\*A person continuously disabled since childhood (before age 22), if one of his parents (in some cases a grandparent) who is covered under social security retires, becomes disabled, or dies. The mother of the disabled son or daughter may also receive monthly benefits as long as she has the child in her care.*

*\*A disabled widow 50 or over, if her late husband was covered under social security, and if she meets the specified level of medical severity. This also applies to disabled dependent widowers and certain disabled surviving divorced wives.*

#### REPORTING MEDICAL EVIDENCE

When a patient applies for benefits, he is asked to submit medical evidence to support his claim. This evidence usually consists of data from the records of his treating physician, clinic or other medical source. Our experience with the disability program in Oklahoma indicates that in about 75-77% of cases no further medical development is needed because the treating source already has enough information on record to provide a good picture of the applicant's condition and how it limits his ability to work.

When this information is inadequate, we order a consultative examination by a physician who has agreed to do such examinations.

This information may be requested on the patient's behalf by a social security district office—or, more often, by the Department of Institutions, Social and Rehabilitative Services. This is the full name of the agency in Oklahoma that evaluates social security disability claims for Oklahoma residents. Like other state agencies throughout the country that work with Social Security in the disability insurance program, the DISRS in Oklahoma includes both physicians and trained disability examiners on its professional staff. They form a balanced team of medical and non-medical people who can handle anything from a strictly medical issue to a complete assessment of the vocational factors which bear on the disability decision.

With the assistance of our staff of reviewing physicians, we endeavor to make these requests for medical information relate as directly as possible to the condition which the claimant states is the cause of his disability. The goal of the individually tailored request is to ease the medical reporting burden of the busy physician or clinic, without jeopardizing the claimant's right to have his case decided on the basis of all relevant information available.

The evaluating physician in DISRS never sees the patient. He depends mainly on information supplied by the physician or clinic to assess the severity of the applicant's impairment, its expected duration and the extent of his residual functional capacity. The

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*A 1925 graduate of the University of Louisville School of Medicine, J. Floyd Moorman, MD, is now Supervisor of the Disability Insurance Unit of the Department of Institutions, Social and Rehabilitative Services of the Oklahoma Public Welfare Commission of the State of Oklahoma. He is Associate Professor of Medicine emeritus of the University of Oklahoma Health Sciences Center. Doctor Moorman is a Fellow of the American College of Physicians and a Fellow of the American College of Chest Physicians.*

disability decision, therefore, rests largely on the quality of the medical evidence obtained. *A detailed report from the treating source, including objective findings and laboratory procedures, will usually be sufficient for us to evaluate the claim and make a decision.*

For example, if the patient experienced a myocardial infarction, we would look to the report submitted by the treating sources for such information as date of occurrence, place and duration of the hospitalization, as well as results of X-rays, electrocardiograms, and other laboratory studies. Serial ECG tracings should, whenever possible, accompany the report so that our staff of physicians may also have the benefit of reviewing this essential documentation. Equally important is the medical history, including onset of chest discomfort, relationship to effort, intensity, location, radiation, regularity, and to what extent relief is obtained by rest or medication.

If a report does not contain all the findings necessary to make a proper decision, one of our reviewing physicians may recontact the medical source. However, the additional time required may delay the patient's claim and can add up to a significant additional program expense.

Physicians can help speed the decision on patients' claims by reporting all relevant data about medical conditions as promptly as possible.

Establishing the onset date of disability—often a key factor in determining the beginning date and amount of the claimant's benefits—is frequently difficult. Therefore, it is extremely helpful if the reporting physician includes the date of each important fact or finding. To save time, he may enclose photocopies of pertinent sections of the patient's chart or of hospital or consultant's reports.

In making disability determinations, our agency uses medical criteria developed by the Social Security Administration to insure uniform evaluation of all applicants no matter where they live, and to help simplify and speed the decision process. These criteria were worked out with the aid of practicing physicians, major medical organizations and SSA's Medical Advisory Committee.

Generally, a claimant who is not working can meet the social security definition of disability if he has an impairment or combination of impairments that are the same as, or medically equivalent to, any set of findings in the criteria. (This is the only way the *widow of 50 years or over* can qualify for disability benefits.) However, for *all other claimants* whose impairments fall short of this test, such factors as age, education, and work experience added to the functional limitations imposed by the medical condition are taken into consideration in making the disability decision.

The complete criteria, including the medical findings listed by body system, are contained in a handbook designed especially for professionals who come in contact with the disabled population. The handbook describes impairments in terms of specific symptoms, signs and laboratory findings that are presumed to be severe enough to prevent a person from working for a year or longer.

The handbook may be obtained from Department of Institutions, Social and Rehabilitative Services, Disability Insurance Unit, Box 25352, Oklahoma City, Oklahoma 73125, telephone A/C 405 521-1701. We also welcome any inquiries from physicians who wish to know more about the social security disability program and its policies and procedures.

P.O. Box 25352, Oklahoma City, Oklahoma 73125



## News From The Oklahoma State Department of Health

### RECOMMENDATION OF THE PUBLIC HEALTH SERVICE ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES-INFLUENZA VACCINES

#### INTRODUCTION

The effectiveness of the inactivated influenza vaccines is variable and their protection relatively brief. However, they should be given to the chronically ill and the elderly.

#### INFLUENZAVIRUS VACCINES

Two vaccines will be available this year: bivalent A and B vaccine, and monovalent type B vaccine. Bivalent influenza vaccine this year will contain a new type A representative of prevalent "England" strains. Each adult dose of the 1973-74 vaccine will contain 1,000 CCA units of the type A England strain, and 300 CCA units of a type B strain (B/Mass/1/71). All 1973-74 vaccines are highly purified and relatively free from adverse reactions.

Since late 1972, new strains of type B virus have been identified. Anticipating that little natural immunity exists in the general population to these strains, a monovalent type B vaccine containing an antigen representative of the new strains is expected to be available prior to the 1973-74 influenza season.

#### VACCINE USAGE

Annual vaccination is recommended for the elderly and persons who have chronic debilitating conditions: 1) Congenital and rheumatic heart diseases; 2) Cardiovascular disorders with cardiac insufficiency; 3) Chronic bronchopulmonary diseases; 4) Diabetes mellitus and other chronic metabolic disorders.

#### SCHEDULE

Primary or booster vaccination consists of a single dose of vaccine (dose volume and administration route are specified in the manufacturer's labeling). Monovalent type B vaccine should follow bivalent vaccine by at least two weeks, and vaccination should be completed by mid-November.

#### PRECAUTIONS

Influenza vaccine should not be administered to persons clearly hypersensitive to egg protein, ingested or injected. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR JUNE, 1973

Disease	June 1973	June 1972	May 1972	Total to Date	
				1973	1972
Amebiasis	1	3	2	14	17
Brucellosis	—	—	1	2	4
Chickenpox	125	8	13	1267	141
Encephalitis, infect.	19	1	1	27	4
Gonorrhea	963	818	1047	5304	4970
Hepatitis, infect. & serum	132	79	121	597	472
Leptospirosis	—	—	—	—	1
Malaria	—	—	1	1	4
Meningococcal infections	5	—	—	15	6
Meningitis, aseptic	6	—	—	25	21
Mumps	76	3	43	372	154
Rabies in animals	28	19	36	125	206
Rheumatic fever	0	1	6	9	23
Rocky Mt. spotted fever	28	8	4	45	16
Rubella	8	2	16	167	33
Rubella, congenital syn.	—	—	—	—	—
Rubeola	9	—	1	49	9
Salmonellosis	16	13	18	91	70
Shigellosis	22	9	10	110	40
Syphilis (infectious)	13	100	151	96	59
Tetanus	2	—	—	3	1
Tuberculosis, new active	26	22	36	158	155
Tularemia	6	1	2	13	5
Typhoid fever	1	—	—	2	1
Whooping cough	—	5	—	14	17

## No Physician Relief In Phase IV

Phase IV of President Nixon's Economic Stabilization Program, announced June 13th, 1973, offered no relief for the nation's physicians. Physician's fees are still under the tight restrictions imposed by Phase III.

Under Phase IV, just as under Phase III, physicians . . . defined as "non-institutional health care providers". . . may not charge more for a service than the "base price" for that service, unless they can meet certain requirements. Generally, the "base price" of a service is the highest price or fee a physician could charge for that service during the President's 90-day freeze on wages and prices, August 16-November 13, 1971.

*(The Economic Stabilization Program, under control of the Internal Revenue Service, has issued a publication entitled "Controlling Prices Charged by Physicians, Dentists and other Non-Institutional Health Care Providers." This publication, Number S-3048 (4-73) is available from local IRS offices.)*

Health care services under the Economic Stabilization Program were separated into two categories. Generally, hospitals and other extended care facilities are classified as "institutional providers." Physicians, surgeons, dentists, and similar providers of health services are classified as "non-institutional providers." Under Phase III, and now Phase IV, a physician may increase his prices up to an aggregate of 2.5 percent if he can show certain increases in the cost of doing business. Such allowable costs include wage and salary increases, expenditures for new technology, and increases in rent paid for office space. Any legitimate increase in the cost of doing business may be considered so long as it is a "continuing, rather than one time, expense . . ."

According to the ESP publication, "The price increase for an individual service may exceed 2.5 percent as long as all price adjustments do not raise a provider's revenues more than 2.5 percent above what they would have been had the provider charged base prices for all services throughout the year, and as long as the increase is cost justified and the profit margin is not increased."

In another place the publication states, "An increase in price may not result in a percentage rise above the weighted average

profit margin of any two of the following years: A (physician's) last three fiscal years ending before August 15, 1971, plus any fiscal year completed on or after that date. Thus, if profit margin was ten percent, it must remain ten percent or less after there has been a price increase."

Profit margin is defined as the ratio that operating income . . . *i.e.* net sales less cost of sales and less normal and generally re-occurring cost of business operations, determined before non-operating items, extraordinary items, and income tax . . . bears to net sales as reported on the person's financial statement prepared in accordance with generally accepted accounting principles consistently apply.

A formula for arriving at profit margin is given in the ESP publication: Patient service revenues (all types) *less* deductions (allowances and discounts) *equals* net patient service revenues *plus* other operating revenues (from services, sales, sources and activities other than patient services) *equals* TOTAL OPERATING REVENUES (AGGREGATE ANNUAL REVENUES) *less* operating expenses *equals* NET OPERATING REVENUES (OR LOSS) *plus* non-operating revenues (not directly related to patient care or sales of related services or goods) *less* non-operating expenses *equals* TOTAL REVENUE (OR LOSS). Thus, net operating revenues divided by total operating revenues equals the profit margin or net revenue percentage.

In addition to taking allowable costs into consideration, the physician wishing to raise his prices must also consider productivity gains, and weigh one against the other. Any price change must not result in a profit margin increase for the physician. However, under price control regulations there are no limits on a physician's profit margin when it is increased through productivity. The profit margin limitation applies only when a physician has increased his prices.

After a physician surveys his entire prac-

tice and determines that he can justify a fee increase, such an increase is limited to an aggregate 2.5 percent, *regardless of the amount or extent of his cost increases.*

The price increase of any individual service . . . such as an office call, appendectomy, laboratory tests, etc. . . . may exceed 2.5 percent as long as the total price adjustments do not raise a physician's revenue more than 2.5 percent above what they would have been had the physician charged base prices for all services throughout the year.

Because of the requirement that the price increase cannot exceed 2.5 percent in the aggregate, many physicians have chosen to raise only selected fees, as opposed to a general fee increase across the board. As an example, if office call charges account for ten percent of a physician's total revenue, he might feel justified in raising his office call charge by as much as 10 to 20 percent. This amount probably would not cause his overall price picture to exceed the 2.5 percent aggregate limit, nor violate his profit margin limitation.

There is one exception to the 2.5 percent rule. If a physician did not raise his fees up to the 2.5 percent limit in 1972, in 1973 he may be able to raise his prices an aggregate of 5 percent, if his cost increases justify it. He does so by adding the 2.5 percent he was eligible for in 1972 to the 2.5 percent he may be entitled to for this year.

In all instances, any increase in price must be justified by increased costs. However, it is not necessary for a physician to notify the Economic Stabilization Program of his intention to increase his prices up to the 2.5 percent limit . . . or the 5 percent limit for a two-year period . . . in advance. All physicians are subject to monitoring and spot checks by the Internal Revenue Service and the Stabilization Program and their records must be available for inspection and justification of such increases.

#### EMPLOYEE WAGES

The wages of employees in the health care industry . . . including those working in physician's offices . . . are also under certain limitations through Phase III and IV.

An employee's wages may be increased without any restrictions up to a total of \$3.50 per hour. Once an employee reaches this level, any increase is limited to 5.5 percent per year.

Wages and salaries as defined by the Economic Stabilization Publication include not only take home pay, but also indirect pay such as vacation and holiday pay, bonuses, deferred compensation, housing allowances, over-time pay, etc.

The 5.5 percent pay increase limit does not apply if the employee is changing jobs or assuming extra duties that are compensable. However, a slight change in duties such as an increase in the amount of the same type of work, is not a bona fide promotion or change in job status.

This same 5.5 percent wage increase limitation applies to the employees of a professional corporation . . . including the physician employees.

The willful payment of wages and salaries in excess of the limits will be "an illegal act under the laws of the United States." The Internal Revenue Service has ruled that the amount of excess wages and salaries willfully paid, since illegal, are not deductible as trade or business expenses for tax purposes.

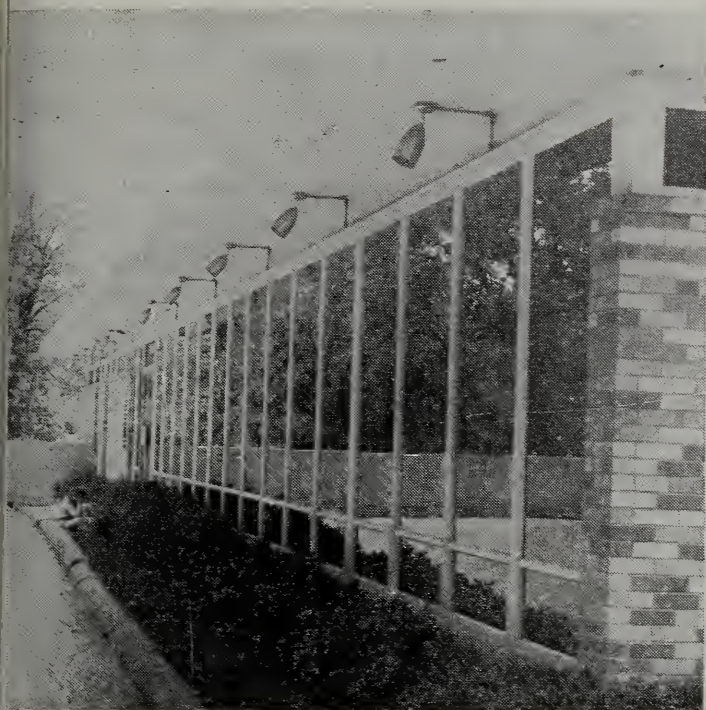
Employees in the health care industry have been specifically singled out for wage control. Generally the law states that employees in companies or firms with 60 or fewer employees are exempt from the wage and salary standards. However, this exception does not apply to an "institutional or non-institutional provider of health services." ☐



REMEMBER THESE DATES

May 13th-15th, 1974

**OKLAHOMA MEDICAL SUMMIT**



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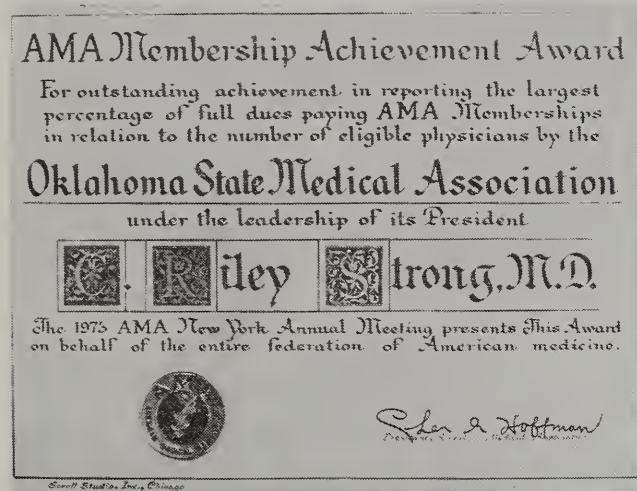
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## Membership Achievement Recognized By AMA



A membership achievement certificate and a \$2,000 check were awarded the Oklahoma State Medical Association for "outstanding achievement in reporting the largest percentage of full dues paying AMA members . . .". The presentation was made to OSMA President C. Riley Strong, MD, during the AMA's New York Annual Meeting. The award is for calendar year 1973.

## OSMA "Good News" Award Presented To Five

Five members of the WKY Television News Department were presented the OSMA "Good News" Award for their participation in publicizing medical news and activities.

In announcing the award OSMA President C. Riley Strong, MD, commended Jack Ogle, WKY-TV News Director, and Pam Henry, Bob Dotson, Darrell Barton and Dick Nelson for their "service during the Polio Sunday and Rub Out Rubella Immunization Campaigns."

In a letter to each of these people Doctor Strong said, "The House of Delegates of the Oklahoma State Medical Association . . . unanimously voted to recognize your service to the profession and the public." He then went on to point out that the success of both of these immunization campaigns was due to the efforts of each of the individuals "on the part of the WKY-TV News Department."

The award itself took the form of a desk set engraved with the name of the recipient and the association. One set was presented to each of the five people. □

## Oklahoma Medical Summit To Be Largest Meeting

Oklahoma Medical Summit, the name given to a combined meeting of the state's three biggest medical groups, promises to be the largest scientific meeting ever held in Oklahoma. Scheduled for May 13th-15th, 1974, in Oklahoma City's Myriad Convention Center, the meeting is sponsored by the OSMA, the Oklahoma City Clinical Society, and the Oklahoma Academy of Family Physicians.

In addition to the three main sponsoring organizations, 19 medical specialty groups and 18 allied health professional organizations have been asked to sponsor scientific sections during the meeting. Two voluntary health agencies, the Cancer and Heart Associations, have also agreed to sponsor programs.

Preliminary plans indicate that there should be nearly 100 scientific, institutional, and general interest exhibits available for viewing. Social events will include at least one cocktail party, an evening fun-type party and a dinner-dance. The dinner-dance will honor the incoming officers of each of the three sponsoring organizations.

Entertainment at the dinner-dance will be furnished by Mark Russell, one of the world's very few political satirists. Mr. Russell has been the resident comedian at the Shoreham Hotel in Washington, D.C. since 1961 and is internationally known for his political humor.

Washington observers say that a politico has not "made it" until he has become the target of Mark Russell's barbed comments. The comedian has appeared on numerous national television programs and has two television shows of his own in the Washington, D.C. area. He has stated that he particularly enjoys entertaining physicians because of their political awareness. Anytime he makes a public appearance, his audience almost always contains political newsmakers . . . up to the cabinet level . . . that turn out to be handy targets. His political satire was the subject of a recent Time magazine article.

Two half-day scientific sections of interest to physicians are already being planned. One will be on acupuncture and the other on vertigo. At least three other scientific seminars will be included in the meeting. □

## **Provost Office Announced For Health Sciences Center**

An Office of the Provost has been announced for the O. U. Health Sciences Center to handle all academic functions on the Oklahoma City campus. The announcement was contained in a memorandum to all deans, department heads, and administrative officials of the center from William E. Brown, DDS, Acting Provost.

The memorandum stated that effective July 1st, 1973, the Office of the Vice-President for Health Sciences was abolished. The new Office of the Provost is located at 633 Northeast 14th Street and will be administered by the Assistant to the Acting Provost, Mr. H. Leon Snow, former Director of the Health Sciences Center Alumni Office.

Matters that require the personal attention of the Acting Provost can be sent to William E. Brown, DDS, in care of the College of Dentistry at the Center.

The administrative functions, exclusive of the hospitals, that had formerly been handled by the Vice-President for Health Sci-

ences are now under the direction of the Vice-President for Administration and Finance on the Norman campus, Doctor Gene Nordby.

Even though the alumni office has been closed, Leon Snow will continue to act as Executive Secretary of the College of Medicine Alumni Association on a part-time basis.

Another administrative move at the O.U. Health Sciences Center was the closing of the Public Relations Office. It is anticipated that a new office will be reopened in January of next year.

The Acting Provost Office is located at 633 N.E. 14th Street in Oklahoma City. The telephone number is 271-5211.

The Acting Provost personal office is located in the College of Dentistry, 1110 N.E. 12th, Oklahoma City. Telephone number there is 271-6326.

Administrative matters may be referred to the Associate Vice-President for Administration and Finance at the Health Services Center, 633 N.E. 14th. The telephone number for administration is 271-5232. □

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## Denyer Recommends AAMA For Physician Employees

A former President of the Oklahoma State Medical Association has recommended that all Oklahoma physicians encourage their office employees to join and participate in the educational programs offered by the American Association of Medical Assistants.

In a letter to *The Journal* Doctor Denyer stated that the AAMA "officers and members have been steadfast in their efforts to become more and more of value to their physician employers." He went on to point out that the Certified Medical Assistant Program has now reached a mature status and that the medical assistant who qualifies to use the designation "CMA" has done so through rigid requirements of formal schooling, experience and after passing "a most severe and demanding examination."

Doctor Denyer's association with the AAMA extends over 20 years. In the past he has served as a state advisor to the organization, and is currently serving as a

national advisor to the group's 16,000 members.

In a comment addressed to the members of the state medical association the doctor said, "Certainly any member of your staff should be encouraged to join and be supported in participation in the many educational functions which are available. Both you as an employer and your AAMA member will benefit."

The letter pointed out that the AAMA will hold its 17th Annual Convention in Washington, D.C., October 23rd-27th. The five-day meeting is packed with educational programs of interest to physician office employees.

Medical and business subjects to be considered will include shock trauma, cardiac resuscitation, office planning and design, practical application of computerized medicine, and numerous other subjects. □

## Poison Information Ready Around The Clock

A new 24-hour poison information service is being offered by the Oklahoma State Health Department. Anyone needing information on poison can call area code 405, 271-5454 for information.

The poison information service has information on the effects and side effects of thousands of poisonous materials. Information on antidotes is available in a matter of minutes.

The information service maintains a criss-crossed index on poisonous materials. They are indexed by trade name, common chemical name, and every other way that might be used to properly identify the poison and the needed antidote. □

## Correction

In the June issue of *The Journal* a telephone number was listed as belonging to the Oklahoma State Health Department. The number is actually that of the New Poison Information Service . . . a 24-hour service . . . being offered by the department.

The Poison Information Service number is 271-5454.

The Oklahoma State Health Department's general information number is 271-5600. □

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## Pharmacists Ask Physician Help

During their June convention Oklahoma pharmacists passed two resolutions asking for assistance from the medical profession in handling prescriptions.

The two resolutions were part of 19 adopted by the Oklahoma Pharmaceutical Association when it met at Fountainhead State Lodge on June 8th of this year.

Resolutions involving prescriptions dealt with the problem of refills and the use of non-imprinted prescription blanks.

Regarding prescription refills, the resolution pointed out that many practitioners do not specify whether or not a prescription should be refilled when it is originally written. The pharmacists voted to encourage all prescribers to provide this information on the prescription and further to encourage prescribers "whenever possible", to write each prescription on a separate order blank.

The proper identification of prescriptions was a subject of another resolution. The resolution pointed out that numerous prescription orders are presented to pharmacists for dispensing on hospital blanks without an imprinted name of a physician. The lack of the imprint makes it impossible to ascertain whom to contact in the event there is a question pertaining to the prescription.

The pharmaceutical association resolved to "urge all interested associations that all prescribers and interns in hospitals be required to print or stamp their names and BNDD numbers on the prescription order, as well as sign it, in order to make the prescriber readily identifiable."

In other actions, the pharmaceutical association voted to oppose any attempt to change the present ant substitution law in the state of Oklahoma. Unlike many states, Oklahoma's current law states that pharmacists can substitute on a prescription if he first obtains the permission of either the prescribing physician, or the person having the prescription filled.

Marijuana came under attack by the pharmacists when they resolved to oppose any attempt to legalize marijuana.

In another resolution a Kingfisher pharmacist, Ralph Enix, was commended for his chairmanship of the Pharmaceutical Association's Drug Abuse Committee.

The committee conducted numerous seminars to train pharmacists and others in presenting drug abuse programs to the general public. Mr. Enix has been personally involved for several years in this type of endeavor and has made hundreds of presentations to interested groups. □

## Emergency Medical Services Subject of Conference

All aspects of emergency services, with emphasis on systems development, will be discussed at a two-day conference to be held in New Orleans on September 6th and 7th, 1973.

Sponsored by the American College of Surgeons' Committee on Trauma, the program is designed to aid state and community leaders in developing responsive, but economical emergency care and transportation systems. Particular emphasis will be placed on development of areawide services to compensate for the ever increasing centralization of medical care from rural areas to urban centers.

Topics to be covered include federal and state EMS legislation, the Impact of the National EMT-A Registry, the Rural Physician in Emergency Medical Services, A Comprehensive EMS Plan, Hospital-Ambulance Equipment Interchange, Public Education, Aeromedical Education, The Hospital Based Ambulance Service, Advanced Training for Emergency Personnel, EMS Communications, as well as reports on the status of emergency services in various states represented.

Two Oklahomans will be among the principle speakers during the two-day conference. C. T. Thompson, MD, and Gerald E. Gustafson, MD, will present papers. Both are members of the American College of Surgeons Committee on Trauma (Oklahoma) and are in practice in Tulsa.

Further information about the two-day meeting may be obtained from the Oklahoma Trauma Research Society, Inc., 6465 South Yale Avenue, Tulsa, Oklahoma 74136. Registration fee for the conference is \$50, which includes all luncheons, social hours, and conference materials. □

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**AMA President-Elect  
To Visit Oklahoma**

Malcolm C. Todd, MD, a Long Beach, California, general surgeon, is the new President-Elect of the American Medical Association. He will be in Oklahoma for a speaking engagement on August 31st.

On that date, Doctor Todd will address the second graduating class of Physician's Assistants from the O.U. Health Sciences Center.

The 60-year old Doctor Todd will serve one year as President-Elect of the AMA and take office as the association's 129th President next June in Chicago. He was elected by the AMA's House of Delegates during its annual convention in New York City.

Doctor Todd was born April 10th, 1913, in Carlisle, Illinois. He is a graduate of the University of Illinois and Northwestern University Medical School.

The California surgeon is a Past-President of the California Medical Association and has been a member of the AMA's House of Delegates since 1959. He is Chairman Emeritus of AMA's Council on Health Manpower and a member of the National Advisory Committee on Health Manpower.

The President-Elect is an Associate Clinical Professor of Surgery at the University of California and a Fellow of the American College of Surgeons, International College of Surgeons, American College of Gastroenterology, and a Diplomat of the American Board of Surgery. □

**Critical Care Medicine  
Topic For PG Course**

The Department of Medicine of the University of Oklahoma Health Sciences Center will conduct an American College of Physicians Postgraduate Course on Critical Care Medicine, March 25th-29th, 1974, at the Lincoln Plaza Inn in Oklahoma City.

Purpose of the course is to extend the knowledge of those professional people who are regularly facing the challenge of critical care medicine. The number of participants is being limited so that, in addition to the formal lectures, a number of small conferences will be directed at teaching the par-

ticipants skills and allowing them to have close contact with the instructors.

The meeting will cover major critical care aspects of pulmonary medicine, cardiology, renal diseases, G.I. disease, infectious disease and shock. The philosophy of the course is to cover specific topics in depth where an increase in knowledge or skill has occurred. There will be no attempt to cover every topic in critical care medicine, but rather to cover selected topics in a thorough manner.

Registration fee for the course will be \$140 for members, including residents and research fellows, \$200 for non-members and \$70 for associate fee. Director of the course will be Robert M. Rogers, MD, FACP.

Further details of the meeting will be published in a later issue of *The Journal*. □

**Chiropractic Payment  
Regulations Issued**

Regulations governing the conditions under which Medicare can help pay for certain services provided by chiropractors have been published by the Department of Health, Education, and Welfare.

Under the proposed regulations Medicare will help pay for manual manipulation of the spine "only to correct a subluxation which can be shown by x-rays to exist and which has caused a condition for which manipulation is appropriate treatment." The regulations then specify that no reimbursement may be made for x-rays or "other diagnostic or therapeutic services provided by chiropractors."

In order to be certified for Medicare reimbursement the chiropractor must be licensed, must have completed an extensive course of study including anatomy, physiology, chemistry, and principles and practices of chiropractic, including clinical instruction, and must have passed an examination by the state's chiropractic examiners.

The same regulations also apply to independent physical therapists. The regulations provide that Medicare will help pay for services furnished by such persons in their office or in the patient's home, up to a maximum of \$100 of incurred expenses yearly. □

## New First Aid Books Now Available

Two new first aid training manuals are now available through the American Red Cross and Doubleday, Inc.

The two new books were specifically designed for the updated first aid courses to be offered by the Red Cross.

One of the new books is designed for use by the general public to prepare people, through providing them with knowledge and skills, to meet the needs of most situations when emergency first aid care is needed and medical assistance is not excessively delayed. The second textbook, "Advanced First Aid and Emergency Care," is designed for use by persons who are responsible for giving emergency care to the sick and injured. It provides the essential information for developing the fundamental first aid capabilities required by policemen, firemen, emergency squad and rescue squad members, and ambulance attendants.

The American National Red Cross, since 1910, has provided first aid instruction to the American public. The teaching program stems from the Congressional charter provision that the Red Cross shall devise and carry on measures for relieving and preventing suffering.

All persons currently holding Red Cross First Aid Instructor Certification will find it necessary to be retrained to use the new textbook. While the old first aid course was ten hours, the new one will be 14 hours in length.

The advanced first aid course probably will be offered only to special audiences . . . the personnel listed above . . . and will take 40 hours to complete.

Both of the new textbooks are written in clear and concise language and are profusely illustrated with accurate and detailed drawings.

Published by Doubleday and Company, Inc., the "Standard First Aid and Personal Safety" textbook is available for \$1.95 in paperback and \$3.50 in hard bound copies. The advanced textbook is \$2.50 for a paperback copy and \$3.95 for a hard bound. □

## Doctor Sturgeon Honored



At a recent meeting of the Cleveland-McClain Medical Society, H. Violet Sturgeon, MD, Midwest City, was presented a Life Certificate in the Oklahoma State Medical Association. Shown making the presentation is Yale E. Parkhurst, MD, Miami, who at the time was OSMA Alternate Trustee from District VII.

Doctor Sturgeon was graduated from the University of Oklahoma Health Sciences Center and has practiced in Hennessey and Norman before becoming psychiatric consultant for the Midwest City Schools. □

## DEATH

J. DENNY MOFFETT, JR., MD

1920-1973

An Ardmore physician for the past seven years, J. Denny Moffett, Jr., MD, died July 7th, 1973. A native of McRae, Georgia, Doctor Moffett was graduated from Emory University School of Medicine in 1943. He practiced in Daytona Beach, Florida, and Beckley, West Virginia, before moving to Chickasha in 1963.

He was a member of the American Urology Association, the American College of Surgeons, the Southern Medical Association and the American Association of Clinical Urologists. □

## **FDA Asked To Delay Allergy Prescription Guidelines**

Spokesmen for drug companies and physician's groups have urged the Food and Drug Administration to delay guidelines on what cough and allergy prescription products may contain.

"These products have been used safely and successfully by physicians for decades," the AMA told an FDA hearing. Asking no "precipitous action," the AMA said "There is hardly a citizen who has not received some relief from bothersome symptoms via one or more of these products."

The proposed guidelines cover more than 200 of the most widely prescribed prescription cough and allergy medicines. Specific limitations would be placed on compositions such as banning combinations of expectorants and anti-histamines. Effect will be to bar continued marketing of many cough and allergy preparations.

John H. Budd, MD, a member of the AMA Board of Trustees, said the interim guidelines would not serve the public interest. Doctor Budd noted that an FDA panel on over-the-counter drugs is reviewing the OTC situation. "It is apparent that the final monograph that emerges from this review process will have a substantial bearing on the formulation and labeling of prescriptions as well as OTC drugs . . . and in many respects will determine the related issues," Budd said.

The AMA official said that if one considers the contribution any one drug may make to a mixture, published evidence as specified in the law does not exist for any of the classes of drugs in cough mixtures: antitussives, expectorants, antihistamines, decongestants, demulcents or flavoring.

"The problem that confronts us is not a simple straightforward one such as determining the effect the drug has on bacterial multiplication, urine output or level of a plasma constituent. Rather we are in the difficult area of subjective human feelings, symptoms with profound psychological as well as physical parameters. The remedies for cough were developed by trial and error over decades and even hundreds of years. The long history behind the expectorant ingredients . . . have put them, in the doses used, to the test of safety and by the impres-

sions of clinicians to the test of effectiveness. How effective they are is difficult to measure since for cough the placebo affect is extremely important. Many coughs respond simply to a drink of water. Other coughs respond to the expectorants. Still others respond only to substantial doses of codeine or an equivalent antitussive, and finally some coughs will yield to nothing yet devised."

Doctor Budd stated that the proposed interim guidelines were not formulated under the specific requirements of the drug law, "but rather were devised on the basis of subjective judgements made by members of the appropriate drug efficacy study panels." □

## **Emphasis Placed on Detection Of Hypertension and Hyperlipidemia**

Nationwide interest in the early detection and treatment of hypertension and hyperlipidemia is being emphasized by recent moves from the American Medical Association, the American Heart Association, and the OSMA.

During its annual meeting in Tulsa, the OSMA House of Delegates heard a report by S. S. Sanbar, MD, Chairman of the Community Service Subcommittee of the Oklahoma Heart Association. Doctor Sanbar told the delegates that the heart group hoped to start a drive in early 1973 aimed at identifying patients with high blood pressure or cholesterol, notifying those persons and their representative physician of the abnormal values obtained and the need for therapy, educating such persons and seeking their physician's help in aggressively treating disorders, and providing means of followup for the patients.

Both the AMA and the National Heart Association are encouraging all states to conduct similar drives. Hypertension and hyperlipidemia are considered to be among the leading risk factors in vascular complications.

One result of the drive is the recent creation of the High Blood Pressure, Hyperlipidemia and Cardiovascular Clinic in the Physicians and Surgeons Building in Oklahoma City. The clinic's primary purpose will be to counsel with persons found to have these two difficulties. □

## Book Review

**A SYNOPOSIS OF CONTEMPORARY PSYCHIATRY.** By George A. Ulett, AB, MS, MD, PhD, Missouri Institute of Psychiatry, St. Louis, Missouri. Fifth edition. Hard cover, 367 pp. St. Louis: The C. V. Mosby Company, 1972.

This small book, one-sixth the weight of the Freedman and Kaplan "Comprehensive Textbook of Psychiatry," does a remarkable job of covering the broad and diverse field of psychiatry. The landmarks in the historical development of the discipline are neatly covered in the first few pages. The remainder of the book is divided into sections on History Taking and Diagnostic Procedures, Clinical Syndromes, and Therapeutic Measures. Each topic is dealt with in a brief, concise fashion making this book valuable as a starting point for learning or review. Lists of suggested readings follow each topic and are an excellent resource. The book overemphasizes def-

initions. When space is at a premium it would seem more important to use it to promote understanding of the subject rather than preservation of a jargon which makes psychiatrists unintelligible to other physicians. How often does one need to use *peccatiphobia*? One-third of the section on phobias consists of such definitions. Anxiety is covered in less than two pages, depressive neurosis in one. This seems rather short shrift for very basic and important topics. Ten times as many pages are devoted to psychotic depressive phenomena, which occupy much less of our clinical time and energy. There is an overemphasis on organic phenomena, and treatment methods. However, the assets of the book are attested to by the fact that this is its fifth edition, appearing sixteen years after the first one. This reviewer intends to keep a copy within reach.

*Mary F. Schottstaedt, MD.* □

## Miscellaneous Advertisements

**OUTSTANDING OPPORTUNITY** for one or two physicians in Cordell. Physician-owner has left state for semi-retirement. Two GPs or a surgeon and an internist would be ideal. One physician could expect gross income of \$90,000 or more; two physicians could expect to more than double the gross. Ten-room modern clinic available for lease or sale, with or without equipment. Also, there is a beautiful eight-room home for sale. Cordell has JCAH hospital. Contact L. Gordon Livingston, MD, 10609 Segoville Road, Dallas, Texas 75149.

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**PHYSICIANS AND ATTORNEYS WANTED.** Building multi-suite professional mall in Weatherford, Oklahoma. A friendly and growing college city. Will build to suit. Option to buy. Write Doctor T. Jeff Toma, P.O. Box 466, Weatherford, Oklahoma. □

## *The Flexner And Millis Reports (1910 and 1971)*

**I**T CAN be stated unequivocally that no evaluation of American medical education has had the impact of the Flexner Report, which was sponsored by the Carnegie Foundation for the Advancement of Teaching and was published in 1910. A modern report (1971) by Dr. John S. Millis, President of the National Fund for Medical Education, contains the most comprehensive study of medical education since Flexner's publication and has been compared in importance with the Flexner Report in its awareness of the current crisis in medical education and its sweeping suggestions.

It seems worthwhile to contrast and compare the two publications. This will demonstrate how much simpler the problems of medical education were in Flexner's time, how far we have advanced in the last 60 years and how much more sweeping the changes are that are required to fulfill our present day expectations.

It is interesting to note that both investigators were not physicians, but renowned educators. Flexner was graduated from Johns Hopkins University and was quite familiar with the educational principles, curriculum, and faculty of its medical school, as well as the higher educational system in western Europe, where he spent two years. He based his report on personal visits to all 155 medical schools in the United States and Canada. Informal conversations with administrative officers, faculty and students and a short visit to the schools' facilities were the source of Flexner's information and judgment. Most of the medical schools of his time were commercial enterprises, geared to financial profit and speedy handouts of diplomas. Flexner essentially concentrated his report on three premises: (1) the urgent need for a rise in standards of admission and in quality of instruction; (2) an aware-

ness of the importance of integrating medical education in its administration and content of its teaching with pre-medical university curricula; and (3) the requirement for a full time staff and laboratory facilities which, in addition to instruction, would provide an opportunity for research by teachers and students. While Flexner recommended reduction of the number of medical schools from 155 to 31, the decrease in numbers of schools was actually not quite so great. But in 1920 there were in existence only 85 schools. While not all innovations and improvements of medical education can be credited to Flexner, his evaluation was a milestone and probably deserved most of the credit for the reforms that were instituted, such as ample laboratory exposure in the basic sciences and bedside teaching in the clinical fields.

As to Flexner's visit to Oklahoma in November 1909, he pointed out that the state had easily three times as many physicians than it needed and recommended that it speedily suppress commercial schools and exclude inferior doctors trained elsewhere. The state should not have more than one school, supported by taxes and/or endowment, with the school being part of the University of Oklahoma. He called attention to the absurd duplication of state institutions and exhorted the authorities to avoid mistakes that older states had made. He further recommended that the medical school be located in a major city in the state, not in a small community.

Many of his ideas and suggestions are still valid. Examples are the creation of admission standards with attention to minority representation among the applicants, the need for a full time clinical faculty and an appropriate faculty/student ratio, high quality of library and laboratories, utiliza-

## *Editorial*

tion of community hospitals for teaching purposes, avoidance of overcrowding of the medical curriculum and awareness of the physician as to social and preventive functions of his profession, to supplement his individualized and curative activities.

The Millis Report, published in 1971, sixty years after Flexner's, records the problems and complexities of today's deepening crisis in medical education in spite of the fact that most of Flexner's goals in regard to the quality of the educational process have been fulfilled. Just as Flexner, Millis is, by background, interest and broad understanding of medical education, eminently qualified to undertake an analysis of the problems and suggest means for their solution. Dr. John S. Millis has been president of two outstanding universities, both having medical schools, and has served on many commissions that concerned themselves with biomedical educational needs and with medical care. He is also the author of a broad survey on graduate medical education, published in 1966.

Starting with an analysis of our present public policy toward medical practice, he calls attention to important conceptual changes in the attitude of the public, which once regarded medical care as a privileged commodity but looks at it now as a necessity and a basic right of the citizen. Our medical educational system has not kept step with these expectations and has not provided the country with the professionals to deliver such broad health services. Actually our present system of training is too rigid to adapt itself to the everchanging needs of health care. After a detailed quantitative inventory of present day services of university health centers and their affiliated hospitals, he discusses the purpose of medical education which to him is to educate physicians in the number, skills and quality determined by the health requirements of society. Our medical educational system is disease rather than health oriented. The latter goal covers the subjects of industrial medicine, pollution, nutrition, preventive medicine, immunology, care of well babies, children and childbearing women, and other subjects.

Thus a re-orientation and re-education of

physician and patient is necessary. On the other hand, instruction in the care of the acutely and severely ill is well covered in our present educational program. The gaps lie in the training of students in the areas mentioned previously and in the primary care of the moderately and chronically ill. According to Millis, we lack a system to bring the benefits of medical care to all citizens at a reasonable cost. While the specialties are excellently covered in outpatient and hospital care, we must take cognizance of the insufficiency in the number of primary physicians, which is out-of-proportion to the number of qualified specialists. Like Flexner, more than half a century ago, Millis points to the need for basic medical care for our impoverished racial minorities, which should be given by American-trained doctors of their own racial descent. In view of the continuously changing picture, Millis envisages short term goals in the manner of five-year plans to fill the gaps. He suggests 13,500 admissions to medical schools by 1975, which would represent a 50% increase over the 1961 level. Parenthetically and gratifyingly, it should be remarked that this goal has already been reached since, in summer of 1973, 13,800 students will be admitted to American medical schools.

While well-intentioned attempts have been made by some medical schools to broaden the scope of their educational program, they have, according to Millis, served themselves into near bankruptcy. What medical schools need most of all is adaptability to change. This applies not only to their training programs, which should take account of the ever-shortening half-life of medical scientific knowledge, but also to changing social patterns and new forms of health care delivery and organization. It also includes adaptation to teamwork with paramedical personnel. Dr. Millis urges increasing enrollment in existing schools rather than creation of new institutions, except where regional deficiencies require the latter approach. He prefers teaching by interdisciplinary faculty groups rather than by departments. His program also includes the ever-increasing use of self-learning devices with reliance on self-directed study in libraries, laboratories, wards and clinics . . . away from dependence upon faculty-directed programs. Many detailed suggestions are given, referring to

diversity of pre-medical training and of social and racial input among admitted students. He also recommends multiformity in length and character of training programs, including those for graduate and postgraduate personnel.

Millis strongly supports the abolition of the internship, which many observers regard as an anachronism and recommends over-all shortening of pre-medical, medical and postgraduate education. He suggests the establishment of a permanent commission to formulate and monitor a system of medical education and to give it national direction and in addition, regional rather than state agencies to oversee the direction of area-wide health service systems. He severely criticizes the multiformity of accreditation at the college, medical school, internship and residency levels, in addition to the diversity of state licensing laws.

As quantitative goals, Millis suggests the often quoted figure of 50,000 additional physicians by 1980. In fiscal terms he states that no medical school should be expected to operate with less than \$8,000 per student per year for basic educational purposes, a figure which would have to be increased to \$10,000 annually per student if one includes the necessary background research activities and ambulatory care facilities. In order to obtain this numerical goal, the report recommends that federal, state and private funds underwrite this fiscal basis, with the federal government's share being given as \$250,000,000 a year. Additional funds are required to support graduate medical education. If

we draw on the analogy of the Flexner report it might take ten or more years to obtain the goals listed.

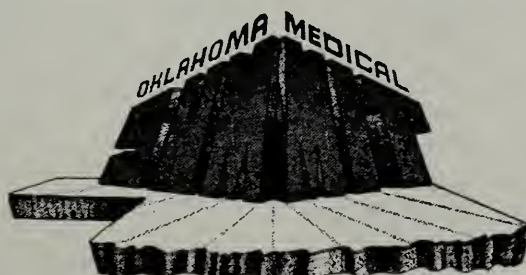
With almost prophetic foresight, Flexner predicted that, once the reconstruction of the recommended curriculum is completed, new problems will come into focus. The social role of the physician will expand and physicians will want a broader social-educational experience, inducing medical schools to include concepts of community medicine into their curricula. Some schools have already followed Flexner's advice to offer the student a broader cultural and philosophical background in their educational program.

In the short period since the publication of the Millis report, many recommended changes have already been initiated. Enrollment of students has been greatly increased with special attention being paid to minority representation among the enrolling students. The curriculum has been shortened and in many places the internship has been abolished or combined with residency training programs. Community hospitals have been included in the student's clinical training program and the percentage of students and residents interested in a career as primary or family physicians has greatly increased. □

#### REFERENCES

- Flexner, A. *Medical Education in the United States and Canada*. Carnegie Foundation for the Advancement of Teaching, New York City, 1910.  
Millis, John S. *A Rational Public Policy for Medical Education and Its Financing*. The National Fund for Medical Education, New York, 1971.

P.O. Box 26901, Oklahoma City, Oklahoma 73190



*REMEMBER THESE DATES*

May 13th-15th, 1974

**OKLAHOMA MEDICAL SUMMIT**



I have decided that no one reads the President's Page except those involved in writing and editing it. Therefore, this month I am not going to write a President's Page, but I am simply going to say I am enjoying being your president. I

hope I am representing you well.

With the coming Fall and Winter time, I would like to have a District meeting in each of the Trustees Districts. I have been invited to Ponca City for the Second District meeting September 11, 1973. If you would like to have me visit your District, please let us try to arrange a date.

Sincerely,

*C Riley Strong M.D.*

## Hemochromatosis

JAMES L. DUNAGIN, JR., MD  
M. DeWAYNE ANDREWS, MD

*Once considered a disease for which the prognosis was poor, hemochromatosis can be effectively treated with measures used by the ancients.*

**H**EMOCHROMATOSIS is a disease characterized by deposition of excessive iron in parenchymal tissues of the body eventually leading to dysfunction of involved organs. The fundamental question of the role of iron remains unsolved and controversial despite numerous attempts to define it. This paper reviews the experience with hemochromatosis at the University of Oklahoma Health Sciences Center, discusses the subject, and emphasizes newer concepts of treatment resulting in improved prognosis.

### METHODS

A retrospective study of the combined records of the University of Oklahoma Hospitals and the Oklahoma City Veterans Administration Hospital was undertaken for the period 1961-1971. A total of twelve patients diagnosed with hemochromatosis were identified.

From the Department of Medicine, The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.

### RESULTS

All twelve patients were white adults with ages at time of diagnosis ranging from 45-75 years; mean age was 58.9 years. Ten patients were men and two were women. A history of multiple transfusions was elicited in both female patients and one male; a history of alcoholism was obtained in three of the men. In no patient was the family history significant.

Presenting manifestations related to cardiovascular involvement in four patients and diabetes mellitus in two; two patients presented with abdominal pain and two with weakness. Signs of the disease found at the time of diagnosis were hepatomegaly in all 12, pigmentation changes in five, splenomegaly in four, and gonadal changes in four of the males; signs of congestive heart failure and/or arrhythmia were reported in four.

Abnormal liver function studies were documented in 9 of the 12, and seven patients showed elevated blood glucose. Serum iron studies at the time of diagnosis are shown in Table 1. Heart disease evidenced by cardiomegaly on chest roentgenogram or abnormal electrocardiogram was present in six. Liver biopsy performed on eleven of the patients showed typical changes of hemochromatosis in all. (See Discussion)

Complications occurring in this series were gastrointestinal hemorrhage in two cases, hepatoma in one, congestive heart failure

developing after diagnosis in one, and adrenal insufficiency in one.

Treatment was phlebotomy therapy in five; seven received only supportive therapy. In the phlebotomy treated group, four were still living and being observed in the clinics of the center at the time of the study, and one was lost to follow-up. In the untreated group, four were dead and three had been lost to follow-up. (Table 1) Death occurred usually within two years of diagnosis. In one of the living patients a repeat liver biopsy three years after phlebotomy therapy was instituted showed moderate fatty vacuolation of hepatic cells, minimal fibrosis, and almost no iron present within the liver.

#### DISCUSSION

**History.** Hemochromatosis was first reported in a case by Trousseau in 1865, although no name was given to the syndrome. In 1871, Troisier referred to this process as "pigmentary cirrhosis in sugar diabetes" and later called it "bronze diabetes." The term *hemochromatosis* was applied in 1889, by von Recklinghausen, who also described hemosiderin which is the iron-containing pigment involved. Important milestones in the literature of hemochromatosis have been

the monumental works of Sheldon, Finch and Finch, and MacDonald.

**Incidence.** Idiopathic hemochromatosis was found to be a rare disease by Finch and Finch, with recognition approximately 1 in 20,000 hospital admissions and 1 in 7,000 hospital deaths. Males predominate over females by a ratio of 10 to 1. Most patients manifest symptoms between the ages of 40 and 60 years; rarely has the disease been reported in patients under 20 years of age. While hemochromatosis usually appears sporadically, there is evidence that it may occur as a familial disorder.<sup>2,11</sup>

**Pathology.** The tissue changes in hemochromatosis are characterized by large accumulations of hemosiderin within parenchymal cells resulting in functional impairment. The most severely involved organs are the liver, pancreas, myocardium, spleen, lymph nodes, endocrine glands, and skin. The total body iron stores which normally range from three to five grams are greatly increased and average over 20 grams.

Recently, pituitary dysfunction has been recognized as quite common with 86% of one autopsy series showing severe siderosis of the pituitary gland and little involvement of the adrenals and testes.<sup>14</sup>

**Pathogenesis.** Occurring early in the course of hemochromatosis is an elevation of plasma iron and saturation of the plasma

Table 1

#### HEMOCHROMATOSIS: UNIVERSITY OF OKLAHOMA HEALTH SCIENCES CENTER, 1961-1971

Patient	Age, Sex	Year of Diagnosis	Year of Death	Phlebotomy	Serum Iron mcg/dl	% Saturation Transferrin	Miscellaneous
AI	48 F	1970	*	—	**	**	Multiple transfusions
RR	65 F	1965	1967	—	222	96	Multiple transfusions death due to cardiac failure
AC	66 M	1965	1965	—	**	**	Death due to GI hemorrhage
GC	51 M	1956	*	+	270	100	
LE	45 M	1968	—	+	252	100	Alcoholism
JL	75 M	1962	*	—	37	25	Multiple transfusions; prior liver biopsy diagnosis
TG	70 M	1966	1967	—	235	100	Alcoholism; death due to hepatic coma & GI hemorrhage
TS	46 M	1954	1967	—	285	95	Death due to hepatoma
CF	69 M	1965	*	—	214	83	
CS	49 M	1966	--	+	207	93	Liver biopsy three years following initial biopsy showed significant improvement
JN	73 M	1963	—	+	223	48	
JT	50 M	1970	—	+	275	37	Alcoholism

\* Lost to follow-up

\*\* Not obtained

iron-binding protein, transferrin, followed by increases in storage iron. Finch and Finch concluded that iron is a causal factor in tissue damage, while MacDonald holds that the deposition of iron is an effect of the disease and that hemochromatosis is essentially a variant of portal cirrhosis. Part of the argument stems from the fact that iron-loading experiments have failed to produce tissue damage such as that seen in hemochromatosis. However, few animal experiments have been chronic or resulted in the usual picture of iron aberrations seen in human subjects. A history of alcoholism has been reported to range from 20-85% of the patients in various series, but populations studied may have been biased by sampling of certain groups more likely to be seen in large, city hospitals.

Investigations of iron metabolism suggest excessive absorption rather than decreased excretion of iron occurs in hemochromatosis. Studies of luminal factors and mucosal control mechanisms have not clearly defined the abnormality. Studies on pancreatic secretions have been unrewarding, and studies on two gastric juice factors give conflicting results. Some investigators claim that patients with hemochromatosis have a factor in gastric juice which potentiates iron absorption, although recent work seems to discredit this thesis.<sup>12</sup> An iron-binding substance found in gastric juice, referred to as "gastroferrin," has been suggested to have an inhibitory role in iron absorption, and in one study<sup>4</sup> hemochromatotics were found to have negligible to absent gastroferrin, thus making plausible increased iron absorption due to lack of an inhibitory factor. Other workers have failed to confirm this.

Sargent *et al*<sup>9</sup> compared radioisotopically the iron absorption of hemochromatotics to that of a normal population and to normals made iron deficient. They found that persons with idiopathic hemochromatosis show a pattern of iron absorption similar to that found in persons with iron depletion anemia. Thus, it seems clear that a normal feedback mechanism is not functioning in hemochromatotics.

Hemochromatosis has been known to occur (1) associated with various refractory anemias; (2) in patients receiving multiple transfusions or following ingestion of med-

icinal iron over many years; (3) in Bantu natives in South Africa secondary to long-term iron overload (Bantu siderosis); (4) in chronic alcoholics with portal cirrhosis; and (5) as a sporadic occurrence apparently caused by a genetic defect ("idiopathic" hemochromatosis). Thus, no single cause can be given, and the question of pathogenesis remains unsettled.

*Clinical Manifestations.* Symptoms most often seen are those of diabetes mellitus, followed in frequency by weakness and malaise, weight loss, change in skin pigmentation, abdominal pain (usually dull, boring and located in the epigastrium or right upper quadrant), dyspnea, edema, loss of libido, peripheral neuritis, and occasionally vomiting and diarrhea.

Physical signs most commonly observed are hepatomegaly, skin pigmentation, spider angiomas, ascites, congestive heart failure or cardiac arrhythmia, loss of body hair, testicular atrophy, jaundice, and hypertension in decreasing order of frequency. Altered skin pigmentation is present in over 85% of the cases. It may be due to deposition of iron, in which case a gray hue is present, or due to increased melanin giving rise to the bronze coloration, or both. Pigmentation tends to be deeper on the face, neck, genital areas, and on extensor surfaces of the distal portions of the extremities.

The diabetes mellitus resulting from this process varies in its severity, with some patients requiring extremely large doses of insulin and others quite sensitive to small doses. Most can be adequately controlled.

Complications which may occur are cardiac failure, hepatic coma, hepatoma, and gastrointestinal hemorrhage. Of these, cardiac

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failure is the most frequent in occurrence and the principal cause of death. The heart failure is more common in younger patients and may be quite resistant to usual therapeutic regimens. Cardiac arrhythmias are frequent in this group as well.

*Diagnosis.* The classical tetrad of hepatomegaly, skin pigmentation, diabetes mellitus, and heart disease strongly suggests the diagnosis of hemochromatosis. Confirmation rests on laboratory measurements. Plasma iron studies are the most useful and simple screening tests available. A high plasma iron and transferrin saturation of 75% or greater are indicative of the disease.

A recently developed indicator of excessive parenchymal iron stores is the desferrioxamine chelation excretion test. Following injection of 0.5 gram of desferrioxamine, a 24-hour urinary excretion in excess of 2 mg of iron indicates excessive parenchymal iron stores. In idiopathic hemochromatosis the amount is usually much larger than two milligrams.

The definitive procedure for confirmation of the diagnosis of hemochromatosis is needle biopsy of the liver with demonstration of parenchymal iron deposition and cirrhosis. On the basis of pathological criteria alone, the various types of hemochromatosis cannot be differentiated. This may be done on the basis of historical evaluation of excessive iron intake by any route and should include a careful dietary history.

*Treatment and Prognosis.* Prior to the availability of insulin, death in hemochromatosis was most commonly due to diabetic coma. With the advent of insulin therapy, cardiac failure, hepatic failure, and portal hypertension became responsible for the majority of deaths. With the more definitive therapy of iron depletion has come a marked improvement in prognosis of the disease.

Therapy involves removal of excessive body iron and supportive treatment. The most successful method of removing iron is phlebotomy, the usual practice being to withdraw one to two units of blood weekly for several months and then one unit every other week until the plasma iron falls to within normal range signaling partial de-

pletion of iron stores. Each phlebotomy removes 200-250 mg of iron from the blood, thus effecting transfer of an equivalent amount of iron from tissue stores. Patients with hemochromatosis maintain their hematocrits between 35 and 45 per cent, despite this regimen of rapid removal of blood. Over a period of two to three years most of the iron deposits in the tissues will be removed. Further phlebotomies are carried out as indicated by hematocrit level and plasma iron. Several authors have reported outstanding success with this mode of therapy, even with return of liver architecture to normal on serial liver biopsies.<sup>3, 15, 16</sup>

The largest series of patients so treated was reported by Williams *et al* in 1969.<sup>16</sup> Forty patients were treated with phlebotomy and compared to eighteen untreated. Five year survival in the treated group was 89% ; in the untreated group 33% survived five years. They found mean survival of 8.2 years for phlebotomized patients and 4.9 years for untreated patients. With therapy, skin pigmentation decreased, liver and spleen size decreased, altered liver functions generally returned to normal, and about one-third showed improvement in their diabetes.

Iron may also be removed by parenteral administration of the chelating agent desferrioxamine, though only 15 mg daily can be removed utilizing this method. This is of little practical value for most patients and should only be adopted when phlebotomy is not feasible.

#### CONCLUSION

Prior to the advent of sustained, vigorous iron-depletion therapy the mean survival time for patients with hemochromatosis was 4.4 years. In the only reported large series of phlebotomy treated versus untreated groups, phlebotomized patients survived almost twice that long.<sup>16</sup> Experience at the University of Oklahoma Health Sciences Center tends to parallel this finding, since at the time of this report our phlebotomy treated patients, with one exception, have survival times at least twice those of untreated patients. Reported improvement in several organ systems following prolonged phlebotomy therapy together with significant improvement in survival time seem to

us compelling reasons for physicians to treat patients with hemochromatosis in an assiduous, long-term manner with this mode of therapy.

#### SUMMARY

A ten-year retrospective study of the University of Oklahoma Health Sciences Center experience with hemochromatosis is reported. A rare disease, hemochromatosis is characterized by deposition of excessive iron in parenchymal tissues leading to dysfunction of involved organs. Elevated plasma iron levels and saturated iron-binding protein are hallmarks of the disease and, with a characteristic liver biopsy, confirm its presence. Increased absorption of iron rather than decreased excretion appears to be the metabolic abnormality.

Hemochromatosis should be strongly suspected in patients demonstrating hepatomegaly, diabetes mellitus, skin pigmentation, and heart disease. Significant improvement in morbidity and mortality reported with long term phlebotomy therapy makes this the treatment of choice. □

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University of Oklahoma Health Sciences Center  
Department of Medicine, Infectious Disease Section

Presents a Symposium

on

Diagnosis and Management  
of

### SERIOUS GRAM NEGATIVE INFECTIONS

Wednesday, October 3rd, 1973

The symposium will be held in Lincoln Plaza Inn in Oklahoma City. Guest speakers will include Vincent T. Andriole, MD, Associate Professor of Medicine at Yale University, New Haven, Connecticut; Gerald P. Bodey, MD, Chief, Section of Infectious Diseases, Department of Developmental Therapeutics, University of Texas, M.D. Anderson Hospital and Tumor Institute, Houston; T. William Curreri, MD, Assistant Professor of Surgery at the University of Texas Southwestern Medical School in Dallas; and William M. Kirby, MD, Professor of Medicine, University of Washington School of Medicine, Seattle, Washington.

Chairman for the event is Everett R. Rhodes, MD, Professor of Medicine and Chief, Infectious Disease Section, University of Oklahoma Health Sciences Center.

Advance registration is requested. Registration should be addressed to Medical Communications and Education, 235 East 42nd Street, New York, New York 10017. The meeting is being sponsored by Roerig, a division of Pfizer Pharmaceuticals.

# Cleidocranial Dysostosis: Report of A Case

WILLIAM M. CROOM, DDS  
ALBERT F. STAPLES, DMD, PhD.

*In 1897, mutational dysostosis was independently described by Marie and Sainton.*

*Since that time over 600 cases have been described in the medical literature.*

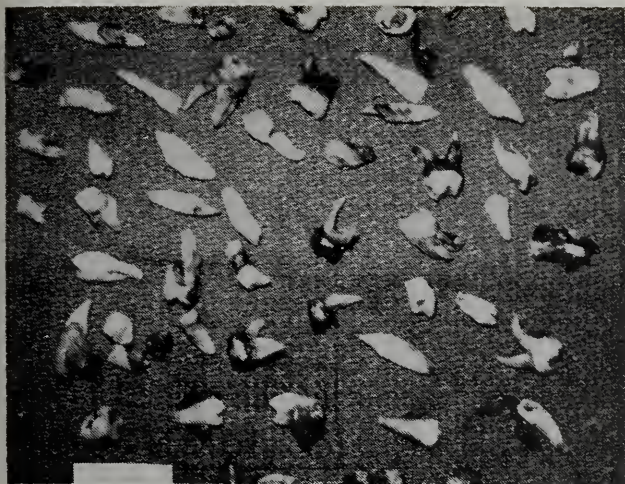
**C**LEIDOCRANIAL dysostosis is the condition characterized by defective development of the clavicles or complete absence of the clavicles (in about 10% of the cases), and permanent non-ossification of the cranial sutures and fontanelles.<sup>1</sup> Currently, over 100 associated anomalies<sup>2</sup> have been described with this condition.

**Etiology** — The cause of the disease is unknown. It is often but not always hereditary.<sup>3</sup> When inherited, it is transmitted as an autosomal dominant characteristic by either sex.<sup>4</sup> Spontaneous mutations frequently occur, implying the alternate name "mutational dysostosis."<sup>3,4</sup>

**Clinical Features** — There is wide individual variation in the clinical features associated with this disease. The patient is often short in height, light in weight, and small in stature.<sup>5</sup> The skull may appear broad and flat,<sup>1</sup> with prominence of the

frontal, parietal and occipital bones.<sup>3</sup> There is often a broad nasal base and nasal alae and a concavity of the nasal bridge.<sup>5</sup> Due to delay in ossification there is often a cranial midline furrow. The facial bones are usually underdeveloped, and the patient often presents with a relative prognathism. Because of the clavicular defect, the patient has increased mobility of the shoulders and can often rotate the shoulders forward until they meet in the midline.<sup>3</sup> Defects have also been noted in the vertebral column resulting in scoliosis. Underdevelopment of the pelvic girdle often results in the patient walking with a limp.

**Oral Findings** — The oral manifestations of patients with cleidocranial dysostosis include, in varying degrees, retained deciduous teeth and formation of multiple supernumerary teeth. The supernumerary teeth are most often found in the mandibular premolar and maxillary anterior regions. Because of the formation of supernumerary teeth in the premaxilla, the maxillary anterior region often appears large or expanded. Delayed eruption of the succedaneous teeth is often noted, and many times this delay is permanent.<sup>3</sup> Rushton<sup>6</sup> and Smith<sup>7</sup> have reported that there is absence of cellular cementum on the roots of permanent teeth. This may be related to the delayed eruption or failure of eruption of the succedaneous teeth. Rushton<sup>6</sup> relates that Gruneberg from his studies on the grey-



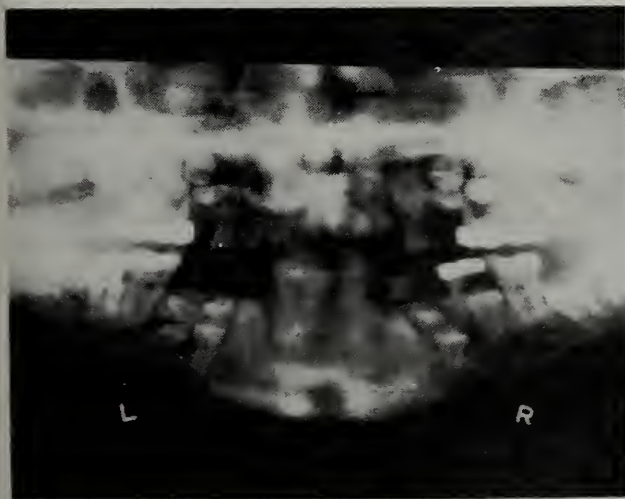
**Fig 1**

Photograph of 46 extracted teeth demonstrating compression of crowns, kinking and twisting of the roots.

lethal mutation in mice, suggests that failure of tooth eruption may be related to failure of the bone to absorb in response to the pressure of the tooth. He states there is lack of a factor which he called "the hereditary basis for response" in the stimulus-response mechanism.<sup>6</sup> There is not only failure of tooth eruption, but also compression of the crowns, and kinking and twisting of the roots. (Fig 1)

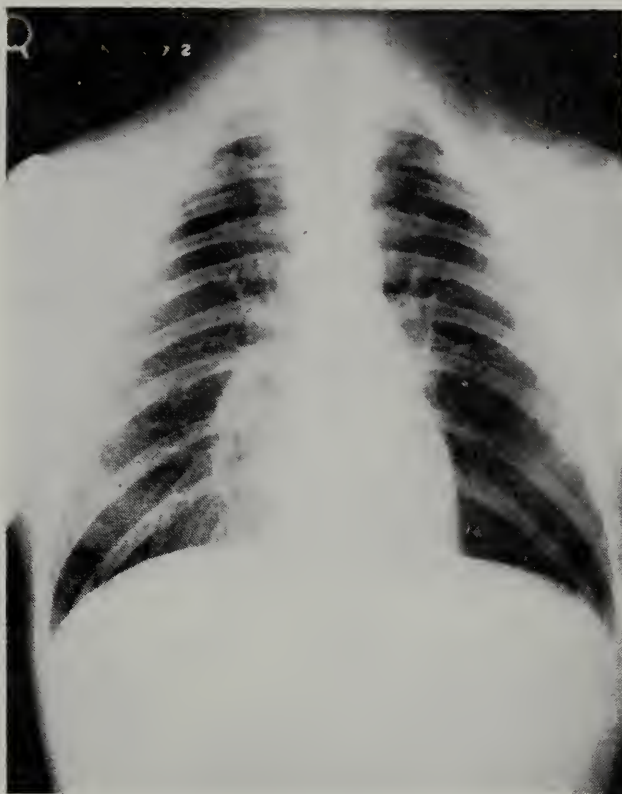
**Radiographic Findings**—The clavicles may appear roentgenographically normal, or in various stages of development ranging to total absence.

The sutures of the skull are broad and the fontanels are large and persist into adulthood.<sup>1</sup> Wormian bone formation is seen in the lamboid and sagittal suture areas of the



**Fig 2**

Panoramic radiograph of maxillary and mandibular areas illustrating impacted supernumerary and succedaneous teeth with associated bony radiolucencies.



**Fig 3**

Posteroanterior radiograph of chest showing absence of clavicles and spina bifida of lower cervical and upper thoracic vertebrae.

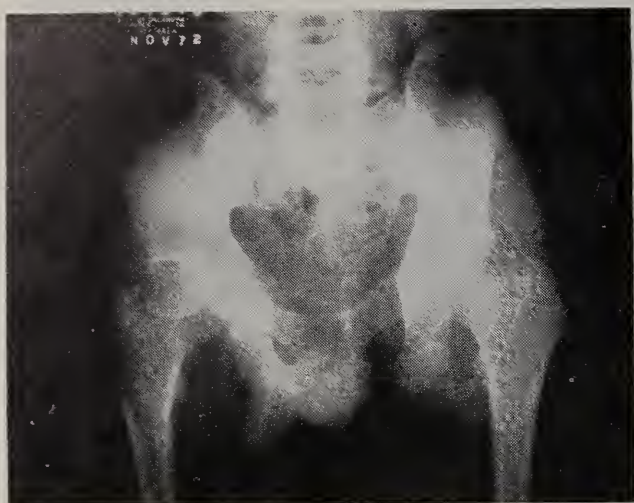
skull. Underdevelopment of the paranasal sinuses may be present.

Many unerupted supernumerary and succedaneous teeth are usually present. (Fig 2) The formation of follicular cysts around the retained teeth is not uncommon. (Fig 2)

Congenital clefts of the vertebral column known as spina bifida occulta may occur. These clefts appear radiographically as an increase in the width of the spinal column. (Fig 3) They usually appear in the lower cervical and upper thoracic vertebrae.

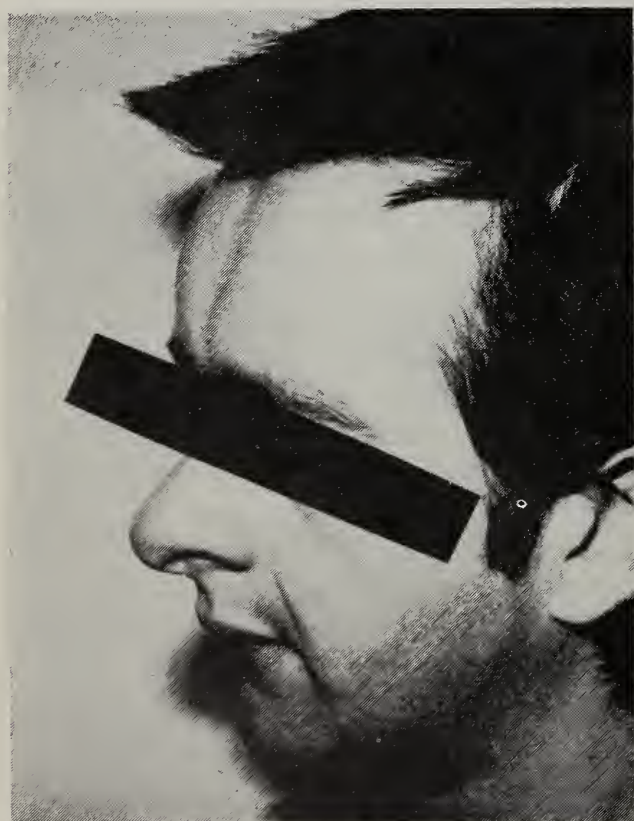
Radiographically, many changes may be evident in the pelvic region. The most prominent is incomplete fusion of the pubic rami. (Fig 4)

**Report of Case**—The patient was a 23-year-old white man who weighed 48 kilograms. His appearance was that of a short, small-statured individual. He had obvious frontal bossing and a prominent, midline furrow of the forehead. (Fig 5) Because of the absent clavicles and the drooping posture of his shoulders, his neck appeared elongated. He had increased mobility of the shoulders and could rotate them forward until they touched in the midline. (Fig 6)

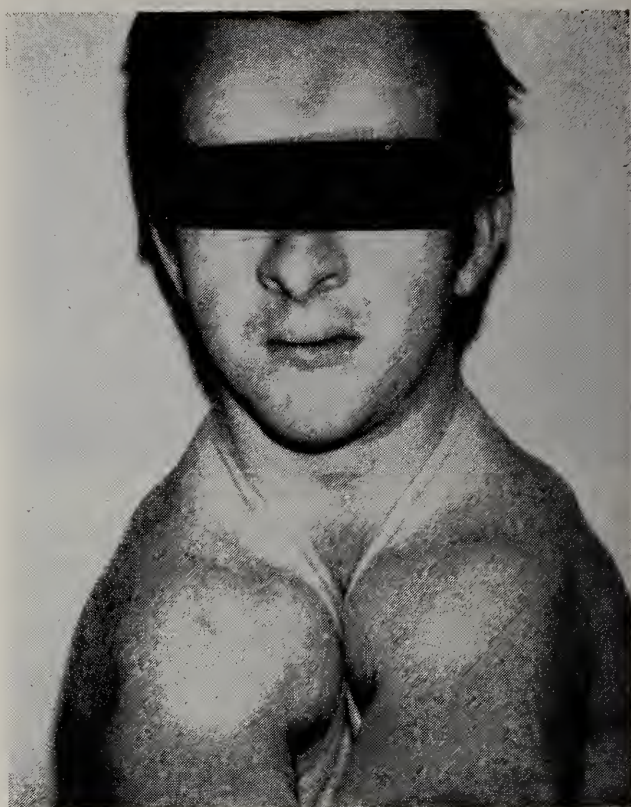


**Fig 4**  
Anteroposterior radiograph of pelvis showing incomplete fusion of pubic rami.

**Past Medical History** — The patient first reported to the hospital with the complaints of "headaches and nervousness." He was evaluated in the medicine clinic where it was noted that he had extreme dental caries and poor oral health. Absence of the clavicles bilaterally was also noted. He was



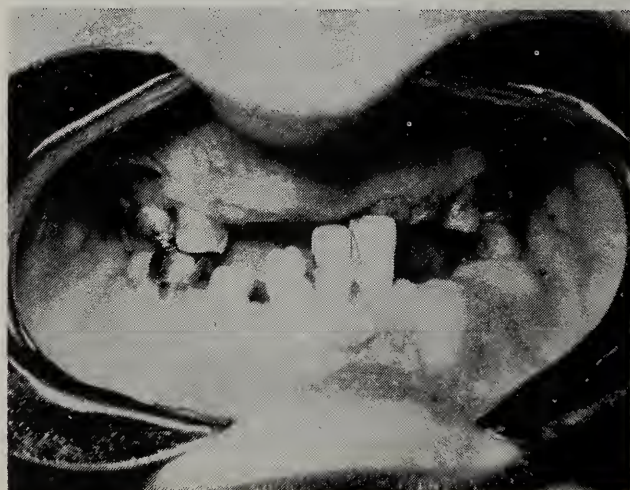
**Fig 5**  
Photograph showing prominent midline furrow and frontal bossing.



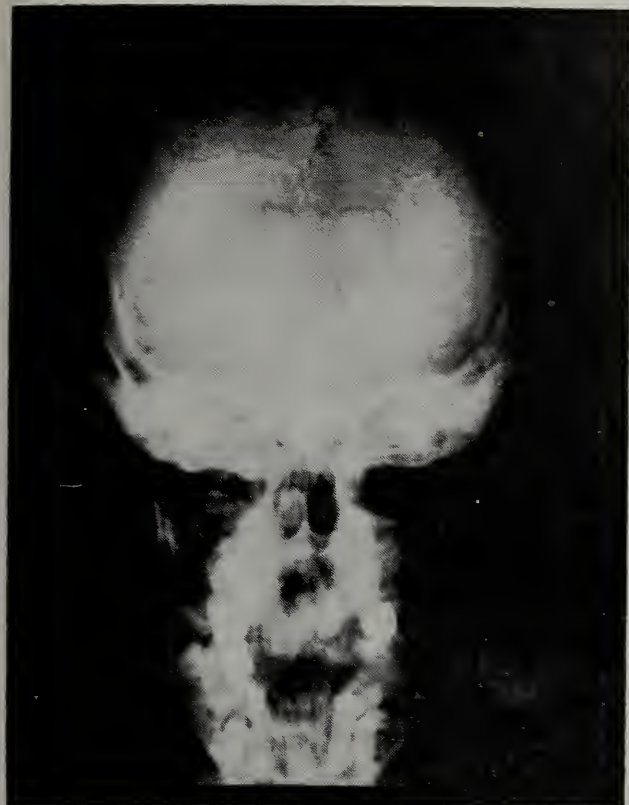
**Fig 6**  
Photograph showing hyper-mobility of shoulders and broad nasal base.

not diagnosed as having cleidocranial dysostosis. His headaches and nervousness were attributed to a chronic anxiety reaction.

The patient was appointed to the psychiatry clinic and the oral surgery department for followup. On return to the psychiatry clinic the patient was diagnosed as a paranoid schizophrenic. He was treated with Mellaril®, 100 mg, four times a day, and Prolixin®, 0.25 mg, once a day.



**Fig 7**  
Intraoral photograph showing retained deciduous teeth and unerupted maxillary anterior teeth.



**Fig 8**

Anteroposterior radiograph of skull showing wormian bone formation and incomplete closure of the anterior fontanel.



**Fig 9**

Lateral skull radiograph showing wormian bone formation and multiple impacted teeth.

Ten days following initial visits to the medicine and psychiatry clinics, the patient was evaluated by the oral surgery department.

**Oral Examination** — Intraoral examination revealed only partial dentition. There were several retained deciduous teeth in a poor state of repair. (Fig 7) Purulence could be expressed from the inflamed gingival crevices.

**Radiographic Findings** — Radiographs of the skull revealed wormian bone formation in the region of the lamboid sutures. (Figs 8 & 9) The anterior fontanel was also patent. (Fig 8)

Dental radiographs revealed a total of 46 teeth. Thirty-four teeth were bony impacted. (Fig 2) The unerupted mandibular premolars and many of the unerupted supernumerary teeth were surrounded by radiolucent areas which resembled follicular cysts.

The chest film revealed a complete absence of clavicles. (Fig 3) Spina bifida occulta were also noted in the upper thoracic and lower cervical vertebrae. (Fig 3) The lungs were free of infiltrates and the heart size was within normal limits.

An antero-posterior radiograph of the pelvis revealed incomplete fusion of the pubic symphysis. (Fig 4)

**Family History** — No family history of cleidocranial dysostosis could be elicited from the patient or his parents. He had one brother and three sisters, none of whom

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*Since his graduation from Tufts University School of Dental Medicine in 1951, Albert F. Staples, DMD, PhD, has been certified by the American Board of Oral Surgery. He is presently Professor and Chairman of the Department of Oral Surgery at the University of Oklahoma College of Dentistry. His medical affiliations include the American Society of Oral Surgeons, Southwest Society of Oral Surgeons, the American College of Dentists, the Society of Sigma Xi, the American Association of Dental Schools and the American Association for the Advancement of Science.*

## *Dysostosis* / CROOM, STAPLES

had cleidocranial dysostosis. The social history revealed the patient to be an 11th grade dropout. He had a history of mild mental retardation. He was unemployed at the time of hospital admission but had worked as an itinerant farm laborer.

**Hospital Course**—The patient was admitted to the hospital on November 14, 1972. Routine laboratory values at the time of admission revealed hemoglobin, 14.0 gm%; hematocrit, 44%; white blood count, 12,900 per cubic milliliter, with a normal differential; urinalysis, prothrombin time and partial thromboplastin time were within normal limits.

On November 15, 1972 the patient was taken to surgery and under satisfactory nasoendotracheal general anesthesia, all 46 teeth, erupted and impacted, were removed. All granulation tissue and follicular cysts were removed. A specimen was sent to surgical pathology for histological examination. Following debridement of the maxillary and mandibular ridges, minimal alveoloplasty was done. The overlying soft tissue was trimmed and closed with 3-0 Tycron® sutures in continuous and interrupted fashion.

The patient was given procaine penicillin, 600,000 units, intramuscularly, three times a day, one day prior to surgery. He was maintained postoperatively for ten days on oral phenoxymethyl penicillin.

The patient's postoperative course was uneventful. He had minimal postoperative edema and was discharged on the second postoperative day to be observed once a week for six weeks in the outpatient clinic. It is anticipated he will be able to wear maxillary and mandibular complete dentures, even though some of the maxillary

and mandibular ridges were removed during the surgery.

**Discussion**—The decision to remove all of the teeth was based on the clinical and radiographic findings of the oral cavity. The poor oral hygiene, the purulence around the necks of many of the teeth, and the multiple follicular cysts associated with the unerupted teeth indicated this treatment. Douglas and Greene<sup>4</sup> advocate complete removal of all supernumerary and unerupted teeth. Hylton and Albright<sup>5</sup> advocate removing only those teeth which would contribute adversely to the construction of the maxillary and mandibular denture.

In the young patient, where infection and multiple follicular cysts are not present, conservative surgery for the preservation of teeth and adequate denture bases is probably indicated.

### SUMMARY

Following a brief review of the clinical and radiographic findings of cleidocranial dysostosis, one case is presented. The patient exhibited many of the classical findings of this disease.

The question of whether to leave or remove the unerupted supernumerary and succedaneous teeth is also briefly discussed.

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Watch for further details of the national meeting of the

## **AMERICAN ASSOCIATION FOR AUTOMOTIVE MEDICINE**

to be held in

**OKLAHOMA CITY, OKLAHOMA**

**HILTON INN WEST, Nov. 14th-17th, 1973**

Many speakers of national prominence in medical aspects of crash injury and pre-crash illness will be featured on the program.

Watch for more detailed information in **THE JOURNAL**



## News From The Oklahoma State Department of Health

### Immunization Action Month

October, 1973 is National Immunization Action Month. State Departments of Health across the U.S. will be involved in locating and immunizing large groups of children susceptible to childhood diseases preventable through immunization - measles, rubella, polio, diphtheria, tetanus and pertussis.

The program will be divided into two major components, one aimed at the physician and his staff, the other directed to parents of children in the one-four age group. It is hoped that more physicians can be encouraged to establish a working audit of his patient records so that each time a record is pulled the vaccination status of the child is determined.

Since physician records do not exist for a good number of children, parents will be encouraged to perform their own vaccination audits of their children. Parents who are uncertain about their children's vaccination records will be encouraged to call their physicians or health departments, thus completing audits on such children, and helping to find susceptibles without health records.

Immunization levels across the U.S., and specifically Oklahoma, are dangerously low in several critical areas. Exact percentages are not readily available, however studies like the one by Gold *et al* in the August 2, 1973 issue of the *New England Journal of Medicine*, have serologically documented inadequate immune status to several childhood diseases. The Gold *et al* study showed that 63% of their study population was susceptible to rubella. Antitoxin levels were low in 27% (diphtheria) and 7% (tetanus) of the population. Fifty-seven percent of these children had antibody levels of less than 1:10 to one or more types of polio virus. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR JULY, 1973

Disease	1973	1972	1973	Total to Date	
	JULY	JULY	JUNE	1973	1972
Amebiasis	6	2	1	20	19
Brucellosis	1	—	—	3	4
Chickenpox	26	2	125	1293	143
Encephalitis, infect.	36	4	19	63	8
Gonorrhea	883	914	963	6187	5884
Hepatitis, infect. & serum	81	54	132	678	526
Leptospirosis	—	—	—	—	1
Malaria	1	—	—	2	4
Meningococcal infections	10	—	5	25	6
Meningitis, aseptic	25	8	6	48	29
Mumps	40	1	76	412	155
Rabies in animals	8	10	28	133	218
Rheumatic fever	1	1	—	10	24
Rocky Mt. spotted fever	17	8	28	62	24
Rubella	10	1	8	177	34
Rubella, congenital syn.	—	—	—	—	—
Rubeola	2	10	9	51	9
Salmonellosis	31	22	16	123	80
Shigellosis	29	5	22	139	62
Syphilis Infectious	7	—	13	103	64
Tetanus	—	—	2	3	1
Tuberculosis, new active	27	34	26	186	190
Tularemia	5	7	6	18	8
Typhoid fever	—	—	1	2	1
Whooping cough	4	5	—	18	22

## Medical Information Re: Aerosol Spray Adhesives

On August 17th the Consumer Product Safety Commission (CPSC) halted the production, distribution, and sale of aerosol spray adhesives. The action on the part of the Commission was based on research reported by J. Rodman Seely, MD, Associate Professor of Pediatrics and Director of the Clinical Research Center, Children's Memorial Hospital in Oklahoma City.

Doctor Seely's investigation linked the spray adhesives used in a home art-craft hobby known as "foiling or foil art" to chromosomal breaks in two severely deformed Oklahoma City infants, their parents, and four other individuals in the area.

CPSC investigators met with Doctor Seely, reviewed his research, and concluded that his findings strongly suggested a causal relationship between exposure to these spray adhesives and findings of chromosome damage and birth defects in the group of subjects he had studied.

Due to the overwhelming public interest in the subject, the Commission issued information developed by its panel of medical experts to help persons exposed to aerosol spray adhesives.

The panel developed the following recommendations for three possibly affected groups: Adults who have been exposed to the sprays; families that are now in either early or late stages of pregnancy and have had one or both parents exposed; and children.

ONE—Adults, who are concerned because of past and/or current exposure:

—Until further information is available they should consider delaying pregnancies.

—Chromosome analysis is not generally available and it is not a practical consideration for all concerned individuals at this time. However, if analysis is done, the individual performing the test should be aware of the nature of the suspected chromosome damage, since this is not a part of routine analysis.

TWO—Couples, in which one or both have been exposed and the wife is pregnant:

—*The risk for the infant is not known.*

—Concern may be increased if both parents have been exposed.

—While chromosome analysis on the parents will not give a definitive answer about the baby, there may be less concern if the results show no evidence of chromosome damage.

—Amniocentesis for intrauterine chromosome analysis of the unborn infant would not provide a definitive answer. Moreover, most centers are not equipped to do more than just a few of these.

—There is certainly a good chance of having a normal, healthy baby.

THREE—Exposed children:

—There is no immediate reason for concern and further studies hopefully will clarify the situation. No action is recommended.

In addition to the above, the doctor and his consultants make the following recommendations for physicians who are called upon to advise their patients:

—For women in the later stages of pregnancy, support and reassurance are urged. Many cases of this type are known in which a normal, healthy baby has resulted.

In addition to the above in early stages of pregnancy, because the risks are not known, *no recommendation is made regarding therapeutic abortion*. If any couple should elect to undergo therapeutic abortion, they should consider doing it under a circumstance in which the fetus would be available for study, such as at a major medical center.

Because of the rapidity with which the situation arose . . . the research findings leading to action by the Consumer Products Safety Commission . . . there was no time to follow the usual lines of communication. A preliminary report of Doctor Seely's findings is currently in preparation which will outline his research, the methods he has followed, and the results that are significant.

A survey of facilities is being conducted

so that a network of laboratories may be identified that are capable of doing chromosome analysis for this specific problem

Laboratory facilities in Oklahoma capable of doing the type of studies required are limited and priorities will have to be established. If chromosome analysis is done, as stated above, the laboratory performing the test must be made aware of the nature of the information about chromosome damage being sought, since this is not a part of routine chromosome studies.

In Doctor Seely's research, chromosome preparations were made from cultures of peripheral blood from the ten study subjects and from twelve control subjects. The metaphase plates were scored for gaps and breaks. The doctor stated, "The following are scored as breaks: deletions, displaced fragments, disturbance of chromatid alignment, and a discontinuity of the chromatid which is as wide or wider than the width of the chromatid. A gap is a shorter discontinuity. We have not scored as positive the frequently observed non-staining or pale-staining areas in the pericentric region." Comparisons of the findings between the two groups of individuals showed a higher percentage of cells with breaks and/or gaps in the study subjects that is "statistically highly significant." □

## **Oklahoma Medical Summit Program Planning Underway**

Oklahoma Medical Summit, a joint venture by the Academy of Family Physicians, Oklahoma City Clinical Society and the Oklahoma State Medical Association, promises to be the largest medical meeting ever held in Oklahoma. The joint venture is scheduled for May 13th through 15th in Oklahoma City's Myriad Convention Center and Skirvin Hotel.

A tentative program schedule has been announced by Arnold Nelson, MD, Chairman of the Scientific Program Committee. On Monday morning two concurrent programs will be conducted on acupuncture and cancer. Both programs will feature nationally prominent speakers.

Monday afternoon will see a continuation

of the cancer program and a presentation on psychiatry.

Tuesday morning's program includes a special seminar on obstetrics and gynecology and another program on cardiology. The cardiology program will continue into the afternoon when there will also be seminars on "Neurological Surgery and Neurology" and "Endocrinology."

Two seminars are also scheduled for Wednesday morning, May 15th. Vertigo and Nephrology will be the two topics for discussion.

Meetings by eight medical specialties and nearly seventeen allied health organizations will be fitted around the major program seminars. In addition, numerous social functions are planned for the three days.

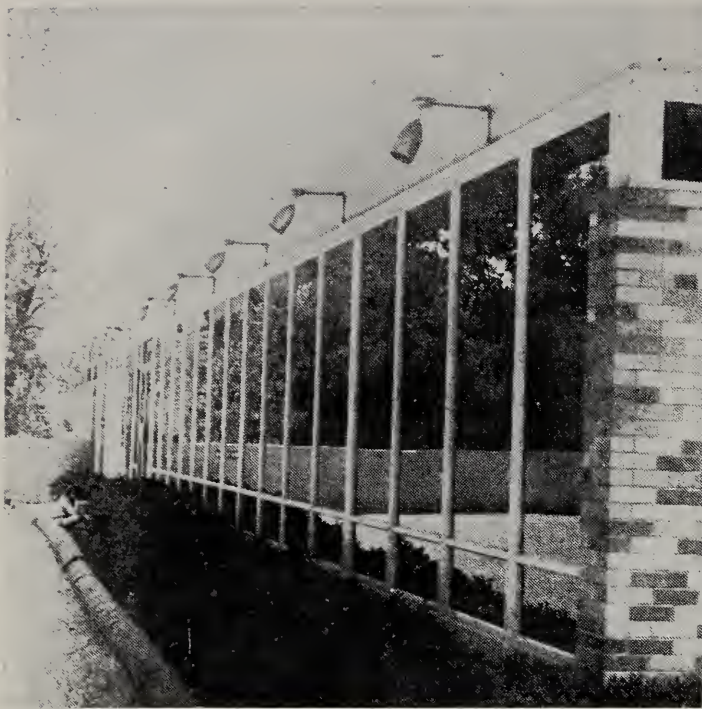
A scientific - institutional - commercial exhibit area with over 100 exhibits is being planned.

Any physician interested in preparing a scientific or medical exhibit is asked to contact Doctor Samuel A. Wheeler, MD, in Oklahoma City. Doctor Wheeler is the Exhibits Committee Chairman.

Oklahoma Medical Summit will mark the first time that the state's three largest medical organizations have joined together for a joint meeting. The Oklahoma Academy of Family Physicians, The Oklahoma City Clinical Society and the OSMA have each made Oklahoma Medical Summit their official annual meeting. The medical association's House of Delegates will meet on Sunday evening, May 12th for the opening session and the closing session will be held on Wednesday afternoon, May 15th.

The Academy of Family Physician's Board of Directors meeting will be held on Sunday while its annual membership breakfast and business meeting will be held on Tuesday morning, May 14th.

Special guest speakers during the meeting will include two national medical presidents. James Price, MD, President of the American Academy of Family Physicians and Russell Roth, MD, President of the AMA, will each address a special luncheon and be present for other functions. □



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## **Hypertension Symposium Slated For Bartlesville**

Physicians from four states are being invited to attend the "Symposium on Hypertension" to be held at the Hillcrest Country Club in Bartlesville, Oklahoma, October 3rd and 4th.

Authorities on the subject of hypertension come from the Cleveland Clinic, the University of Texas Medical School, and the University of Oklahoma Health Sciences Center.

The speakers will be Norman Kaplan, MD, Associate Professor of Internal Medicine at the University of Texas; Louis Tabian, MD, Professor of Medicine at the University of Minnesota and Edward Frohlich, MD, Professor of Medicine at the University of Oklahoma Health Sciences Center.

The meeting will start with a dinner on Wednesday evening, October 3rd, at the Bartlesville Hillcrest Country Club. The Symposium on October the 4th will be held at the Phillips Petroleum Company Auditorium.

Reservations for the program may be made by contacting the Continuing Education Center at the Jane Phillips Episcopal-Memorial Medical Center, 410 East Frank Phillips Boulevard, Bartlesville, Oklahoma 74003. Telephone area code 918, 336-6910.

□

## **State Dieticians Plan Seminar**

A seminar of interest to dieticians and other food service supervisors has been scheduled by the Oklahoma Dietetic Association in cooperation with the OSMA.

The Seventeenth Annual Food Service Supervisor's Conference is scheduled for September 26th through 28th at the Center for Continuing Education on the OU Campus in Norman.

The program should be of particular interest to food service personnel in hospitals, nursing homes, and educational institutions. Over 300 registrants attended the 1971 conference.

Persons interested in attending the conference are urged to contact the Oklahoma Dietetic Association at 2533 N. W. 51st, Oklahoma City, Oklahoma 73112 or the Oklahoma Center for Continuing Education in Norman.

□

## **Children's Hospital Modernization Under Way**

Remodeling and expansion of the 46-year-old Children's Memorial Hospital in Oklahoma City is now under way. The program is expected to be completed in 12 to 14 months.

Operation of the Children's Hospital was transferred from the University of Oklahoma management to the Department of Institutions, Social and Rehabilitative Services in the Spring. The remodeling and expansion program was authorized by the Oklahoma Public Welfare Commission shortly after the transfer.

One of the first management actions to be taken after the transfer was to inaugurate a 24-hour emergency service at the hospital. Its 147 beds are now restricted to care of patients under 21 years of age.

It is anticipated that a new Children's Memorial Hospital Building will be constructed within three or four years on a site east of the present hospital in Oklahoma City. The state legislature authorized the Public Welfare Commission to issue revenue bonds to fund the construction.

Funds for the present refurbishing project include over half a million dollars from the 1968 state Hero Bond money, \$350,000 in federal funds previously authorized by the commission and the balance will be from the state assistance fund.

The new expansion will take the form of a three-level addition to the front of the building. Although antiquated and poorly designed according to present day standards, the old building is structurally sound. Combined with the new addition it can be transformed into a functional facility for immediate needs and then to serve as a long term care unit after the new hospital is built.

The approximately 25,000 square foot addition, slated to be under contract this fall, will house an enlarged admitting area, administrative offices, business services, volunteer services and other functions. The remodeling is already underway and is being accomplished by DISRS skilled labor brought in from other institutions and the state office.

□

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## Scott And White Schedules Continuing Education Courses

Scott and White Memorial Hospital in conjunction with the University of Texas Medical Branch in Galveston has scheduled three continuing education courses for area physicians in the subjects of gastroenterology, practical neurology and psychiatry, and office gynecology.

On Saturday, September 29th, a one-day seminar on recent advances in gastroenterology will be held in the hospital's Sid Richardson Auditorium. The program will include discussions on such topics as "Pathophysiology of Malabsorption", "Clinical Importance of GI Hormones", "Pancreatic Function Tests", "New Concepts of the Lower Esophageal Sphincter", and numerous other subjects.

Guest faculty for the gastroenterology seminar include T. C. Chalmers, MD, Director of the Clinical Center, National Institute of Health, Bethesda, Maryland, and S. B. Dudrick, MD, Professor and Chairman of the Department of Surgery at the University of Texas Medical School in Houston.

A short course in "Practical Neurology and Psychiatry" has been scheduled for October 12th and 13th at the hospital. It is designed for the primary physician and will present a practical approach to common office problems emphasizing diagnosis and treatment. The course is acceptable for ten hours of category 1 credits for AMA Physicians Recognition Award.

Guest faculty will include Joe Foley, MD, Department of Neurology at Western Reserve School of Medicine and John Goodman, MD, Department of Psychiatry at the University of Texas Medical Branch in Galveston.

"Office Gynecology" will be the subject of the annual T. S. Bunkley Seminar in Obstetrics and Gynecology to be held at the Scott and White Hospital on November 2nd and 3rd. Problems of menopause, menstrual abnormalities, contraception, and cancer detection and treatment will be discussed.

Guest lecturer will be John Zelenik, MD, Professor of OB-GYN at Vanderbilt University Medical School. He will be joined by members of the Scott and White staff.

Family physicians, gynecologists, sur-

geons, nurses, and residents in training are invited to attend. This conference is acceptable for Category I credit for the AMA Physicians Recognition Award.

Physicians interested in attending any of the Scott and White Seminars may contact the Department of Continuing Education at the hospital in Temple, Texas 76501. Telephone area code 817, 778-4451. □

## Third Edition of CPT Book Now Available

Current Procedural Terminology, the AMA's book on medical coding is now available in its new third edition. Over 2,000 new and revised procedures have been coded and listed.

CPT is, basically, a listing of terms and identifying codes for reporting medical services and procedures performed by physicians. It is a five digit code developed by the AMA to provide a professional coding system. It was prepared in cooperation with medical specialty groups and provides a uniformed language to designate accurately medical, surgical and diagnostic services.

The third edition is available from the American Medical Association for \$5.00 per single copy. Orders should be directed to the American Medical Association, Order Department, 535 Dearborn Street, Chicago, Illinois 60610.

CPT is also available on magnetic computer tape and microfiche. Information on these two versions is also available from the Order Department of the AMA. □

## CORRECTION

An article in the summer issue of the OSMA Comment stated that the Board of Health had established 28 weeks as a period to determine what is a fetal death. This is not correct. The State Board of Health has determined that the period of gestation for a fetal death will be 20 weeks.

After 20 weeks of gestation any dead fetus will require the filing of a fetal death certificate and the fetus must be treated as a dead body in all other respects. This rule applies whether the fetus is expelled or extracted. □

## Tulsa County Medical Society Awards Scholarships

The Scholarship Fund of the Tulsa County Medical Society has awarded a total of \$6,000 in educational assistance grants to ten area medical and nursing students for the 1973-74 school year.

Floyd F. Miller, MD, President, said the sum was a record annual distribution, made possible in part by several substantial gifts from Tulsa physicians in the past year.

Eight grants went to Tulsa County students at the University of Oklahoma College of Medicine, and two were awarded to students in Tulsa nursing programs.

Recipients of the Doctor Anna Luvern Hays Memorial Scholarships of \$650.00 each went to Robert J. Coffey, 2734 East 3rd Street, an O.U. College of Medicine senior; Lynda M. Dickerson, 4121 South St. Louis, a sophomore; and Jack S. Elder, 4031 South Toledo, also a sophomore.

The Doctor Frank L. and Jessie Flack Scholarship of \$650.00 was given for the first time to William A. Hall, 10639 East 4th Place, a freshman at the University of Oklahoma College of Medicine. This award was created by Mrs. Jessie Flack in memory of her husband, Frank L. Flack, MD, Tulsa surgeon and medical leader who died in 1963.

The Doctor Maxwell A. Johnson Memorial Scholarship, named for the Tulsa urologist who died in 1971, went to David J. Griffin, 8554 East 34th, a sophomore at the O.U. College of Medicine. It is also for \$650.00.

The Doctor O. C. Armstrong Scholarship of \$400.00, established last year by the retired Tulsa physician, was given to Mrs. Connie L. Litvinchuk, 2736 South 114th East Avenue, who is in her final year at Hillcrest Medical Center School of Nursing.

The Woman's Auxiliary to the Tulsa County Medical Society made possible a scholarship of \$650.00 to R. Carl Ingram, 2912 West 39th, a senior at the O.U. College of Medicine. The auxiliary also gave a scholarship of \$400.00 to Willie Doris Daniels, 2524 North Marion, a student in the Tulsa Junior College Nursing Program who is accepted for enrollment at St. John's Hospital School of Nursing.

Two other grants of \$650.00 each went to Don R. Roller, Mounds, and Steven L. Saltzman, 9039 East 32nd Street, both juniors at the University of Oklahoma College of Medicine. □

## VD Pamphlet Available From Health Department

Physicians and clinic directors now have available a new tool for communicating information about venereal disease. An attractive new VD pamphlet has been designed and produced by the Oklahoma State Department of Health.

The new pamphlet was designed and produced by the State Health Department's Venereal Disease Division as part of a statewide information effort. It contains information to enable the lay public to recognize gonorrhea and syphilis and then points out where they can seek treatment.

Quantities of the new pamphlet are available to physicians and clinics by contacting the VD Control Division, Oklahoma State Department of Health, Northeast 10th and Stonewall, Oklahoma City, Oklahoma 73105. □

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## Abortion Situation in Oklahoma Reviewed

On January 22nd, 1973 the United States Supreme Court handed down two decisions which had the effect of declaring as unconstitutional almost every abortion law in the United States. Although dealing specifically with the laws of only two states, Texas and Georgia, these laws were so similar to other state laws as to make the decisions some of the most far reaching ever issued by the high court.

In response to the decision in the Texas case, *Jane Rowe versus Henry Wade*, the Oklahoma Court of Criminal Appeals declared the Oklahoma statute to be "unconstitutional as being violative of the due process laws of the 14th amendment to the United States Constitution." This decision came from Oklahoma's court on January 31st in the case of *Virgil R. Jobe, MD, versus the State of Oklahoma*.

Doctor Jobe had been convicted of the offense of performing an unlawful abortion and sentenced to five years imprisonment by the District Court of Oklahoma County. The decision of the Court of Criminal Appeals over-turned that conviction and declared Oklahoma's law to be unconstitutional.

Although the declaration that a specific statute is unconstitutional does not remove that statute from the laws of the state, it does render it inoperative. It would still be possible for a District Attorney to charge a person with the crime of performing an unlawful abortion, but at the first hearing before the District Court the charge would be dismissed.

A bill was introduced in the State Legislature which would have repealed Oklahoma's old abortion law, and stricken it from the statute books, and replaced it with a law that followed the guidelines laid down by the Supreme Court in the two abortion decisions. The proposed statute was debated and finally rejected by Oklahoma's Legislature.

During that same Legislative session another bill was introduced to change Oklahoma's Medical Licensure Law and redefine "unprofessional conduct." Under the original state licensure law the first definition of unprofessional conduct was "procuring, aiding, or abetting a criminal operation or abortion." House Bill 1142 expanded the

number of definitions of unprofessional conduct, and deleted from the first the phrase "or abortion" so that it now read "procuring, aiding or abetting a criminal operation."

The Legislature approved HB 1142 and it became law on May 2nd, 1973. As of that date, Oklahoma no longer had any abortion laws that could be applied to physicians. It could still be possible to prosecute a lay person for performing an abortion under the statute that makes it a crime to practice medicine without a license, or possibly under the criminal statutes dealing with the crime of maiming.

Shortly after the issuance of the original Supreme Court decisions the Oklahoma State Medical Association, through its Board of Trustees, adopted a policy statement to be issued to all members of the association and to all licensed hospitals. The policy statement was as follows:

"Abortion is a medical procedure and should be performed only by a duly licensed physician and surgeon in licensed hospitals, and must be in conformance with standards of good medical practice and the medical practice act of this state.

"Neither physician, hospital, nor hospital personnel shall be required to perform any act violative of good medical judgement or personally held moral principles.

"The patient and her family should be advised of medical implications and the possible emotional ramifications of such a procedure."

At the time the statement was issued Board Chairman M. Joe Crosthwait, MD, stated that he hoped the state legislature would include these recommendations in any future legislation which it might adopt to govern abortions occurring after the 12 week period covered by the Supreme Court decision.

(In its decisions the Supreme Court made it clear that it would not abide any interference in a woman's right to an abortion during the first trimester of pregnancy. This is the "12 week period" referred to above.)

During the debate over a possible new abortion statute for the state of Oklahoma and after the Court of Criminal Appeals had issued its decision the State Attorney General, Larry Derryberry, made it clear that he felt that the state no longer had an op-

erative criminal abortion law. The subsequent failure of the Legislature to adopt a new law prior to its adjournment left the situation somewhat confused.

In response to numerous inquiries, the Executive Director of the OSMA, Don Blair, requested an opinion from Roy C. Lytle, the Attorney and Counselor for the association, regarding abortions in Oklahoma. Mr. Lytle's opinion was contained in a letter received by the association on August 6th. In the letter he outlines the legal considerations confronting Oklahoma physicians and hospitals in relation to abortions, and made the following comments:

"1. No doctor is required to perform an abortion or to assist in one, and no hospital is required to permit an abortion to be done within the hospital. This is entirely elective with the doctor or the hospital.

"2. Among doctors and lay persons there are many who feel that an abortion is morally improper, and perhaps this factor should be taken into consideration by any doctor or hospital if they feel that the performance of an abortion may have an impact upon their respective standings in the community.

"3. If an abortion be done, it should be performed in accordance with good medical practice. Failure to apply good medical practice undoubtably leaves those involved subject to civil liability in a malpractice case. The tests in a malpractice case are whether or not there was negligence in the performance of the procedure. There is also the possibility of civil liability where the plaintiff asserts that the operation was performed without her informed consent. People have a habit of changing their minds, and this is a field in which it is strongly advised that detailed specific written consent be obtained before the operation.

"4. It has been observed by various writers on this subject that the seriousness of the abortion depends upon whether the operation be during the initial period of pregnancy, or during a later period. There are many shades of gray involved, and obviously there is more risk not only to the patient, but also to the doctor and hospital if the

abortion be performed during the last trimester of the pregnancy."

At the start of his letter Mr. Lytle stated, "As you know, the abortion statutes are classified as criminal statutes, and generally speaking they prohibit abortions and provide penalties for violation. As of today the performing of an abortion or the assisting in such is not a crime, and abortions may be done without fear of arrest or criminal trial." He then went on to make the above cited comments.

In the Texas case, *Jane Rowe versus Wade*, the Supreme Court laid down certain guidelines outlining what it would accept in a state abortion law. Briefly it stated that any law that provided for abortions only to save the life of the mother would be considered violative of the due process clause of the 14th amendment.

The court went on to state that during the first trimester "the abortion decision and its effectuation must be left to the medical judgement of the pregnant woman's attending physician." It then stated, "For the stage subsequent to approximately the end of the first trimester, the state, in promoting its interest in the health of the mother, may, if it chooses, regulate the abortion procedure in ways that are reasonably related to maternal health."

Once the fetus reaches the stage of viability the court stated that the state, "In promoting its interest in the potentiality of human life, may, if it chooses, regulate, and even proscribe, abortion except where it is necessary, in appropriate medical judgement, for the preservation of the life or health of the mother."

In that same decision the court attempted to clarify any confusion about who could perform an abortion when it stated, "The state may define the term 'physician' . . . to mean only a physician currently licensed by the state, and may proscribe any abortion by a person who is not a physician as so defined."

The Supreme Court decision in the *Rowe versus Wade* case allows the individual states to place increasing restrictions on abortion as the period of pregnancy lengthens. The court said, "The decision vindicates the right of a physician to administer medical treatment according to his professional judge-

ment up to the points where important state interest provide compelling justification for intervention. Up to those points the abortion decision in all its aspects is inherently, and primarily, a medical decision, and basic responsibility for it must rest with the physician. If an individual practitioner abuses the privilege of exercising proper medical judgement, the usual remedies, judicial and intraprofessional, are available."

The court made specific mention of the fact that it had not considered and did not consider the father's rights in the abortion decision. It stated that in neither the Texas nor Georgia cases were the parental rights asserted and, therefore, were not considered.

It is anticipated that if a state Legislature, Oklahoma's included, should pass an abortion law that does not meet the requirements set out by the Supreme Court, it would immediately be challenged by one of the pro-abortion groups.

It is also anticipated that a new abortion law will be considered by the next Oklahoma Legislature when it convenes in January of 1974. ☐

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## DEATHS

MONTE V. STANLEY, MD  
1893-1973

A long-time Tulsa physician, Monte V. Stanley, MD, died July 27th, 1973. He had practiced in Tulsa since 1919. Born in Ozark, Arkansas, Doctor Stanley was graduated from Chicago College of Medicine and Surgery in 1917. He had served both as Assistant County Health Officer and as Tulsa County Physician.

Doctor Stanley had received an Honorary Life Membership and a Fifty Year Pin from the OSMA.

HENRY L. REGIER JR., MD  
1936-1973

Henry L. Regier, Jr., MD, Lawton physician, died July 30th, 1973. The 37-year-old internist was born in Kansas City, Missouri and was graduated from St. Louis University School of Medicine in 1961. Following his residency training,

he practiced in St. Louis and Clayton, Missouri before establishing his practice in Lawton. Doctor Regier was a member of the Phi Beta Pi and a member of the board of the Comanche County unit of the American Cancer Society.

WALLIS S. IVY, MD  
1885-1973

A Duncan physician for over 40 years, Wallis S. Ivy, MD, died August 16th, 1973. Born in Abbott, Mississippi, Doctor Ivy was graduated from Vanderbilt University School of Medicine in 1910 and return to Mississippi where he practiced four years before moving to Marlow, Oklahoma. In 1919 he opened his practice in Duncan.

Doctor Ivy became an Honorary-Life Member of the OSMA in 1962 and received a Fifty Year Pin in 1960. He was a member of the Southern Medical Association. □

## Book Reviews

### SYNOPSIS OF SURGERY. Second Edition.

By Richard D. Liechty, MD, and Robert T. Soper, MD, from the Department of Surgery, University of Iowa College of Medicine, Iowa City, Iowa. St. Louis: The C. V. Mosby Company, 1972. 1,180 pp, 669 illustrations. Hardbound. \$15.50

The 26 contributors, most from the University of Iowa Medical School, have prepared this introductory surgical text "for the beginning student, whether a junior ward clerk or a seasoned physician who wants only a brief updating (and references) in some surgical field unfamiliar to him." It is a small pocket-sized book in which the authors have covered the traditional areas important to surgical management—wound healing, surgical infections, pre- and post-operative care, anesthesia, etc. Subsequent chap-

ters deal with specific organ systems and with the various surgical subspecialties, for example, orthopedics, plastic surgery, and urology. Chapters new to this second edition include transplantation, total parenteral nutrition, and gynecology. Understandably, there is only the most superficial coverage of surgical techniques.

The medical photography, x-ray reproductions, and illustrations are generally quite good. The orthopedic section by Dr. Carroll B. Larson is especially well written and complete. It includes the common congenital, infectious, traumatic, metabolic, neoplastic, neuromuscular, degenerative, and postural orthopedic disorders. Several tables dealing with the differential diagnosis of congenital skeletal abnormalities and bone tumors would be quite useful for the general phy-

sician or others who might not be familiar with these problems. Likewise, the following section on the hand provides an excellent review of neuroanatomical function and the diagnosis and treatment of common hand injuries.

Although cardiac surgery is a highly specialized area, the sixteen pages devoted to it (while neurosurgery encompasses almost three times the space) hardly provides an overview of the field. Also care of the acutely injured patient is covered in only a general fashion. (It is noted that the abdominal "tap" for diagnosing intra-abdominal hemorrhage is outlined, while the probably more useful technique of peritoneal lavage is not mentioned.)

In general, the deficiencies of *Synopsis of Surgery* stem from its brevity, as would be expected in any attempt to cover such a wide area of practice in so little space. The lack of depth will compromise its usefulness for the student or practitioner interested in surgery, and yet its broad, concise format might be valuable to others seeking such an overview. The authors specifically state that their aim is "to provide more than a repository of surgical concepts to which he (the student) can retreat at examination time." It would seem, however, that the use of this text in review for general board examinations is its most ideal application. *Hartzell V. Schaff, Jr., MS IV*

**PEDIATRIC OTOLARYNGOLOGY.** Volume II of "Diseases of the Respiratory Tract in Children." Second Edition. By Charles F. Ferguson, MD, Senior Otolaryngologist, The Children's Hospital Medical Center, Harvard Medical School, Boston, Massachusetts; and Edwin L. Kendig, Jr., MD, Professor of Pediatrics, Medical College of Virginia, Richmond, Virginia. Philadelphia: W. B. Saunders Company, 1972. 1,390 pp.

This is the second volume of "Disorders of the Respiratory Tract in Children." As pediatrics during the past 50 years has evolved into an important and very broad specialty, so has increasing interest in its various subspecialties proportionately expanded. Problems in otolaryngology now play a major role in the every-day practice of all

primary physicians. It is the intent of the editors that this work be geared especially to medical students, residents in pediatrics and in otolaryngology, practicing pediatricians, and to otolaryngologists who may only infrequently see young patients. The approach of the book thus differs from that found in the standard general otolaryngology text.

Much of the book deals with the everyday occurrences in an active practice of pediatrics, such as the diagnosis and treatment of epistaxis, nasal allergy, and hearing disorders. Other chapters contain information on problems less commonly seen by the pediatrician. There are excellent and well illustrated chapters on bronchoscopy and bronchography. The book also contains an index to the contents of the companion Volume I.

Pediatricians and other physicians in the groups mentioned above will find this book a valuable reference. *Harris D. Riley, Jr., MD.*

**ZINSSER MICROBIOLOGY.** 15th Edition. Edited by: Wolfgang K. Joklik, PhD, James B. Duke Distinguished Professor of Microbiology and Immunology and Chairman, Department of Microbiology and Immunology, Duke University School of Medicine; and David T. Smith, MD, James B. Duke Distinguished Professor of Microbiology Emeritus, Duke University School of Medicine. New York: Appleton-Century-Crofts, 1972. 1,120 pp. \$23.75.

In the preface, the authors point out that in the last decade and, in particular the period since 1968 when the previous edition of this textbook was published, there has been a rapid acceleration of two opposing trends which vitally affect the teaching of microbiology. These include the explosion of new discoveries in almost all aspects of microbiology, such as the identification of new infectious agents, unsuspected properties of known agents and improved techniques of controlling infections. These factors, as well as the increased number of publications, have increased the scope and complexity of the material to be presented to medical students. The other influence is the profound changes in teaching methods, ". . . the most significant of which is the use of core courses."

The authors state that because of the pressures arising from these developments it has become impossible to provide within a volume of reasonable size a comprehensive treatment of microbiology, particularly for more than the one group of readers to which *Zinsser Microbiology* has been directed in the past. The authors state that the new 15th Edition addresses itself first and foremost to medical students and, in this respect, it signifies an abrupt break with the past.

The 15th Edition is, in the main, a new textbook designed primarily for the medical student working within the framework of a modern core curriculum. As stated succinctly in 1910 by the authors of the 1st Edition, it is still their aim that students "by becoming familiar with underlying laws and principles, may not only be in a position to realize the

meaning and scope of some of the newer discoveries and methods, but may be in a better position to decide for themselves their proper application and limitation."

The overall organization of component sections of this edition differs somewhat from that of previous editions. The three basic sections, "Bacterial Physiology" "Immunology," and "Basic Virology," now occupy almost one-half of the book. They are entirely new and are written primarily by authors who did not contribute to previous editions.

In spite of the inclusion of a large amount of new material, the size of the new text is one-third less than that of the previous edition.

The new 15th Edition can be recommended as an up-to-date and useful text. *Harris D. Riley, Jr., MD* ☐

## Miscellaneous Advertisements

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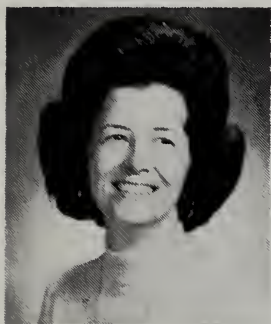
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## Summer Report of Your President



**Mrs. Daniel R. Storts**

The 1973-74 auxiliary year is now well underway. The national convention was held in New York City, June 24th-28th. Oklahoma was represented by Mrs. Daniel Storts, Mrs. John Williams, Mrs. C. Riley Strong, Mrs. Joe Crosthwait and Mrs. Harlan Thomas as delegates. Mrs. Virgil Forester, Southern Regional Vice-President, gave Oklahoma six representatives to national. Alternate delegates were: Mrs. Orange Welborn (who served the final day as delegate), Mrs. Ed Calhoon, Mrs. Floyd Miller and Mrs. Rex Kenyon.

There was a complete revision of national by-laws this year. The two changes of particular interest to Oklahoma were re-wording of the Auxiliary Purpose and two new membership classifications, Direct and Special.

We were privileged to hear Harry Schwartz, PhD, author of *"The Case for American Medicine."* Doctor Schwartz feels the doctor's wife can be of great service to the doctor image of American Medicine. He advised the auxiliary members to be conscious of the weaknesses in the medical system both as to technical difficulties and human relation.

Oklahoma received an award of Merit for A.M.A.E.R.F. with \$11.01 per member contribution; Oklahoma also received an award for an increase in membership over last year. (There were only four new members—so you see, *every* member counts!!).

As guest speaker, Dorothy Sarnoff, Director, Speech Dynamics, Inc., gave pointers

on good speaking and communications, stressing the importance of positive attitude toward your audience and rejecting all inclinations to think negatively.

Doctor Vincent J. Fontana, Chairman, Mayor Lindsay's Task Force on Child Abuse and Neglect, said "this generation's battered children, if they survive, will be the next generation's battering parents. Community and personal involvement by all people will bring us closer to eradicating this social disease."

Mrs. Willard Scrivner was installed as the National President.

The Oklahoma summer executive board meeting was held in my home July 24th, with 33 members attending. Highlighting the meeting was Ken Hager, Executive Director, Oklahoma Council on Health Careers, giving a summary of council activities. He made a plea for "regional creativity" and asked us to search for new ideas to strengthen the activities of high school students. Mrs. Gerald Zumwalt presented a Legislative Workshop for county legislative chairmen and presidents.

Future activities for your President and President-elect include National Fall Conference in Chicago and Southern Regional Workshop in Dallas. We will be joined in Dallas by several State Chairmen. Mrs. William Renfrow, (Membership); Mrs. Gerald Zumwalt, (Legislation); Mrs. Donald Bergman, (Safety); Mrs. Zia Vargha, (Nutrition); and Mrs. Scott Hendren (A.M.A.E.R.F.).

The State Fall Conference and Board Meeting will be October 30th, Glass-Nelson Clinic Conference Room, Tulsa. I'm looking forward to greeting each of you at your district meetings this fall. *Mary Ellen* □

## *Forgive Us . . . Although We Don't Deserve It.*

See if you can find your copy of the September issue of the *OSMA Journal*. It's the one with the yellow and black "Back to School" montage on the cover. Turn to the editorial on Page 383. Read it.

A well done, scholarly, succinct and significant bit of writing, isn't it?

A glance at the contents page and the names of our editors might reveal, to those many physicians in the state who know and love him, whodunnit. He is a great teacher, a true scholar, a compassionate physician. He is also an accomplished author, a recognized authority in his several scientific fields and a regular contributor to medical journals. He has wielded the power of his gentle, good humored discipline over thousands of this nation's physicians, encouraged them as students, inspired them as healers,

and assisted them as practitioners. He is a tireless student himself. As a child, a youth, a man, he has known adversity to a degree rarely experienced by his colleagues. And he has conquered it through toil and sacrifice and dedication.

Because he is an humble, modest giant of a man, he will probably chastise me for writing these truths about him. In consideration of which, I will not write more, although I could fill pages in describing his priceless contributions to his students, his professions and to his society.

Surely, by now, you know that the author of last month's editorial, *The Flexner and Millis Reports* (1910 and 1971) is Dr. Ernest Lachman, Regents Professor Emeritus of Anatomical and Radiological Sciences at our Health Sciences Center.

And by now, you know that we didn't acknowledge his contribution. We really don't deserve him.

*Damn it!*

*MJR*



The political finesse of organized labor becomes more apparent each day.

Senator Kennedy's National Health Insurance bill is sponsored by the United Auto Workers, but UAW President Leonard Woodcock began receiving criticism from

rank-and-file union members when they learned that the cradle-to-grave program would cost anywhere from \$70 - \$100 billion a year in new taxes. To overcome this internal problem, Mr. Woodcock simply negotiated a contract with Chrysler to pay—as a fringe benefit—the cost of any NHI plan which might become law in the future. Traditionally, other auto manufacturers follow suit on auto-labor negotiations . . . So the UAW is now free to list Kennedy's health bill as top priority for this session of Congress.

All other Americans, of course, will get to pay twice for NHI under this type arrangement . . . once through taxation and once again through the inflated cost of an automobile.

The union strategy of transferring health care costs to others is not new. In 1965, labor pushed strongly for Medicare . . . it saw the opportunity to transfer union welfare fund responsibility for retired workers to the backs of all taxpayers.

Our profession must gird itself for an impending struggle of great proportions. A most effective instrument for this purpose is the Oklahoma Medical Political Action Committee . . . a non-partisan group of physi-

cians whose only mission is to elect good people to public office regardless of party affiliation.

The fate of health legislation is frequently decided by a few votes . . . OMPAC is a vehicle whereby a large volume of small contributions may be focused on key Congressional races with effective impact.

This is an off-election year to be true . . . but the NHI issue may not be decided as quickly as labor hopes . . . and OMPAC must build a history-breaking reservoir of campaign funds in order to assure that competent statesmen participate in the history-making decision on National Health Insurance.

Minimum annual dues to OMPAC are only \$20, but we need more than a minimum effort in 1973 and 1974. I suggest, therefore, that every Oklahoma physician send at least a \$50.00 check today to "OMPAC," P.O. Box 75341, Oklahoma City, Oklahoma 73107. Please do this for me . . . please do it for your profession . . . please do it for you.

Sincerely,

*C. Riley Strong M.D.*

P.S. On another subject, there will be an important regional meeting on PSRO in Dallas on October 19 and 20. The OSMA will be represented by Jack L. Richardson, MD, President-Elect, Hillard E. Denyer, MD, President of the Oklahoma Foundation for Peer Review, Scott Hendren, MD, Vice-President of the foundation, and me.

# An Epidemiological Study of Central Nervous System Neoplasms In Oklahoma

ARDEN V. MACKENTHUN, MA  
NABIH R. ASAL, PhD  
PAUL S. ANDERSON, JR., PhD

*A bimodal age distribution of deaths from central nervous system neoplasms was observed which is suggestive of multiple causative factors. The death rates are on the increase especially among males, with higher age-adjusted death rates in urban communities.*

## INTRODUCTION

THE CAUSE OR pathogenesis of central nervous system (CNS) neoplasms is not known at this time although several etiological hypotheses have been suggested. Both genetic and environmental factors have been implicated in the cause of this disease; also, multiple causative agents have been suggested because of bimodal occurrence of these malignancies in children and in the population over 50 years of age.

A study of the distribution of cancer in Oklahoma by Asal<sup>1</sup> reveals that malignant CNS neoplasms account for 2.4% of all cancer deaths. Although numerically few in number, the proportional death rate from malignant CNS neoplasms for the less than 20 year age group is quite high giving a different perspective to these malignancies as compared to that from the usual incidence.

In the Oklahoma Study<sup>1</sup> for the ten-year period 1956-1965, approximately 20% of all cancer deaths in the 0-14 year age group were due to CNS malignancies. MacKay *et al*<sup>2</sup> in a study on the population of Ontario, Canada reported that 10-20% of all cancer deaths in the under 20 year age group were attributed to CNS malignancies. Haenszel *et al*<sup>3</sup> reported a similar observation in his morbidity study of the population of Iowa.

It is also of interest that some authors have associated CNS neoplasms and childhood leukemia. Pinkel<sup>4</sup> and Ederer<sup>5</sup> suggested a common etiologic infectious agent and Evans<sup>6</sup> and Nieri<sup>7</sup> noted an increase in CNS complication in children with leukemia.

Other published studies dealing with the frequency of CNS malignancies include the mortality study in the resident population of Minnesota by Schuman<sup>8</sup>, the morbidity survey of cancer in the United States by Dorn and Cutler<sup>9</sup>, and the study of the resident population of Rochester, Minnesota by Kurland.<sup>10</sup>

In this paper malignant neoplasms of the CNS will be described in relation to the age, sex, race and geographic distributions. It is desirable in studies of this type to provide information which may be of value in determining the roles of various genetic and environmental factors in the cause of this disease, in planning future research in this area, and in comparing the distribution of CNS neoplasms in Oklahoma with other studies.

These distributions were obtainable through the utilization of death certificates.

Although mortality information provides a less accurate picture of the true incidence of disease in a population than a morbidity study, there are advantages for using mortality statistics in this case. The cost and effort required in obtaining the necessary information is considerably less than that of a morbidity study. Also in CNS neoplasms the case fatality rate is relatively high and the survival rate is relatively short, hence death certificate data can be used as a valid index of the incidence of this disease. Haenszel<sup>3</sup> reported a 12 month survival rate of 34% of the cases. Finally, the trend has been towards an increase in the percentage of patients hospitalized which would substantiate the accuracy of the diagnosis.

It should be noted however that the information obtained from death certificates is not totally accurate due to the inadequacies inherent in the system; nevertheless, this source of data can be valuable in describing the general conditions of the disease in the population.

Thus a descriptive study utilizing death certificate information is appropriate for analyzing the distribution of malignant CNS neoplasms and for providing a basis for further studies.

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*Arden V. Mackenthun is a PhD candidate in the University of Oklahoma College of Health, Department of Biostatistics and Epidemiology.*

*Nabih R. Asal, PhD, was graduated from the University of Oklahoma Health Sciences Center in 1969, where he is presently Associate Professor of Epidemiology. He holds memberships in the Society of Epidemiologic Research, the American Public Health Association and the Society of Sigma Xi.*

*A 1954 graduate of Yale University, Paul S. Anderson, Jr., PhD, is presently Professor and Chairman of the Department of Biostatistics and Epidemiology at the University of Oklahoma Health Sciences Center. Among his medical affiliations are the American Statistical Association, the Biometric Society, the American Public Health Association, the Society for Epidemiologic Research and the American Association for the Advancement of Science.*

#### Case Materials:

All death certificates with mention of a malignant CNS neoplasm were obtained from the Oklahoma State Health Department for the periods 1950-1954 and 1956-1965. A portion of the magnetic tape that included data for 1955 was damaged, therefore this year was excluded from this study.

#### General Population Information:

Information for the general population of Oklahoma was obtained from the United States Census. The distribution of the population according to the 1960 census was used as a basis for determining the average annual crude death rate by county and for the average annual mortality rate by age and sex for the white population. Furthermore, to compute the annual mortality rates, the arithmetic average of the decennial census reports (1950, 1960, and the preliminary 1970) were used to provide appropriate estimates of the annual population.

#### Definitions:

To provide a basis for determining the effects of rural residence on malignant CNS neoplasms, the counties of Oklahoma were divided into three categories. The county of residence has been a consistent item on the death certificate and is recorded accurately; therefore, this item was used to provide a quick and reliable method of classifying residence, but it unfortunately does not distinguish farm from non-farm populations.

Counties with a population less than 20,000 have been designated as rural, those with a population greater than 100,000 as metropolitan, and the remainder as urban. These categories are not unique, but they are generally characteristic of the population of each county. The category designated as urban generally includes those counties with one or more cities of population greater than 10,000. By this definition, there are 47 rural, 28 urban, and two metropolitan counties.

The population was also divided into three age intervals: less than 15, 15 to 54, and 55 years of age and older. This partition roughly corresponds to the ages in which the disease is characterized, and it provides sufficient sample sizes for analysis.

Methods:

The distributions of malignant CNS neoplasms by age, sex, race, and county of residence were compared with the corresponding distributions of the general population.

RESULTS AND DISCUSSION

The distribution of the 1,159 deaths due to CNS malignancies by sex, race, and year of occurrence is given in Table 1. The total number of deaths fluctuates from year to year but appears to increase over the period of this study. A more discernible trend is observed in the white male population for the 1961-1965 period where the total number of deaths increased each year. These increases will be compared with the population increases in a later section to determine whether the rates have changed. It should also be noted that deaths among white males predominate over white females for each year; the ratio of white male to white female deaths for the entire period is 1.59. The data for the non-white populations is numerically inadequate for any detailed analysis.

Table 1

Distribution of deaths from central nervous system neoplasms by sex, race and year  
Oklahoma, 1950-1954, 1956-1965

Year	White		Negro		Indian		Total
	Male	Female	Male	Female	Male	Female	
1950	43	9	—	1	1	1	55
1951	38	30	—	1	—	—	69
1952	42	21	—	—	—	—	63
1953	43	23	1	2	1	1	71
1954	39	25	2	2	—	—	68
Total	205	108	3	6	2	2	326
1956	48	27	2	2	—	—	79
1957	51	36	3	—	1	—	91
1958	42	37	3	—	—	—	82
1959	47	28	1	2	—	—	78
1960	45	32	3	2	—	—	82
Total	233	160	12	6	1	—	412
1961	34	34	1	1	—	—	70
1962	39	28	2	1	—	1	71
1963	52	25	1	1	1	1	81
1964	52	34	1	4	1	—	92
1965	61	36	7	3	—	—	107
Total	238	157	12	10	2	2	421
Grand Totals	676	425	27	22	5	4	1,159

Table 2

Number of deaths and death rates from central nervous system neoplasms by age and sex for the white population of Oklahoma, 1950-1954, 1956-1965  
(Rate Per 100,000 Population)

Age Group	White Male		White Female	
	Number of deaths	Rate	Number of deaths	Rate
0-4	39	2.4	24	1.5
5-9	24	1.5	20	1.3
10-14	13	0.9	15	1.0
15-19	12	0.9	11	0.9
20-24	15	1.5	5	0.5
25-29	12	1.3	14	1.4
30-34	32	3.3	19	1.9
35-39	49	5.1	24	2.3
40-44	48	5.1	27	2.8
45-49	61	6.5	36	3.7
50-54	76	8.7	49	5.3
55-59	100	12.8	53	6.3
60-64	84	12.9	44	6.2
65-69	62	10.9	52	8.0
70-74	30	6.8	20	3.9
75-79	10	3.3	7	1.9
80-84	5	3.0	2	1.0
85+	4	4.1	3	2.3
Total	676	4.3	425	2.7

The average annual mortality rate for the total population from malignant CNS neoplasms during the period of this study was 3.3 deaths per 100,000 population; for the white population only, this rate was slightly higher at 3.5 deaths per 100,000 population. The average annual mortality rate for Oklahoma is less than that reported by Schuman<sup>8</sup> for Minnesota which was 4.45 deaths per 100,000 population.

AVERAGE ANNUAL AGE-SEX SPECIFIC Mortality Rates:

Table 2 presents the distribution of deaths by age and sex for the white population of Oklahoma and the corresponding average annual age-sex specific mortality rates, which are illustrated in Figure 1. The white male experiences greater mortality and higher rates in all age groups except for the 10-14 and 25-29 year age groups. In fact there appears to be little difference in mortality experience between these two populations from the ages of 5 through 30 years. The lowest rates occur in the 10-19 year age group for males and in the 20-24 year age group for females. The rates for the white male increase rapidly after age 30 years, obtaining a comparatively high peak in the 55-64 year age group; the corresponding increase in rates is not as striking for the



Figure 1. Average Annual Mortality Rates Per 100,000 population for CNS Neoplasms, Oklahoma, 1950-1954, 1956-1965.

white female which reaches a peak in the 65-69 year age group. After reaching these respective peaks, the rates decrease sharply.

These bimodal curves are comparable with those illustrated in the Minnesota Study<sup>8</sup> and with those of the morbidity study of Dorn and Cutler.<sup>9</sup> Kurland<sup>10</sup> did not observe this bimodality in the Rochester population but reported that the rates increased with age. However, broader age groups and a comparatively smaller sample size may have influenced the Rochester findings.

Beginning in 1961 the deaths were further classified according to the site of occurrence. Table 3 shows this distribution for the white population. Of all malignant CNS neoplasms, 82% occurred in the brain, 10.6% were unclassified according to site, and the remaining 7.3% in the other locations—spinal cord, meninges, peripheral nerves and sympathetic nervous system. Both males and females have approximately the same proportional rate of occurrence in the brain (83% and 81% respectively). The only category where the percentage was higher for the female was in the sympathetic nervous system ISC (193.4) where the percentages were 5.7% for the female and 2.1% for the male. The validity of the above results may be regarded with confidence if we assume that the death certification system in Oklahoma is not markedly different than that in Iowa. Haenszel<sup>3</sup> reported a 91% agreement between death certificates and case reports with respect to the primary site of occurrence and a 92.9% agreement between death certificates and microscopically confirmed cases.

TABLE 3

Distribution of mortality from central nervous system neoplasms by sex, year and specific site of involvement, Oklahoma, 1961-1965, white population

International statistical classification of disease code, revised, 1955		YEAR													
		1961		1962		1963		1964		1965		Total		Grand Totals	
Specific site	Code	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Number	Percent
Brain	193.0	31	31	32	21	42	22	44	26	48	27	197	127	324	82.01
Spinal Cord	193.1	—	1	1	1	2	—	1	—	2	1	6	3	9	2.28
Meninges	193.2	—	—	—	—	—	—	—	—	—	1	—	1	1	0.25
Peripheral Nerves	193.3	—	—	1	—	—	—	1	—	2	—	4	—	4	1.01
Sympathetic Nervous system	193.4	1	—	1	2	1	—	1	5	1	2	5	9	14	3.54
Multiple Sites	193.8	—	—	—	—	—	—	—	—	—	1	—	1	1	0.25
Site Unspecified	193.9	2	2	4	4	7	3	5	3	8	4	26	16	42	10.63
Totals	193.0														
	193.9	34	34	39	28	52	25	52	34	61	36	238	157	395	100.00

Secular Trend of Mortality Rates:

The annual crude mortality rates for the total (white and non-white), the white male, and the white female populations are illustrated in Figure 2. Although the rate for the total population fluctuates from year to year, there does appear to be a slight increase in this rate for the period of this study. It is difficult to generalize the patterns of the white male and the white female rates which fluctuate considerably from year to year, although the white male rates increase rapidly in the period from 1961-1965 while the white female rates remain fairly stable. Because of the fluctuation observed in previous years, however, it may be suggested that the data for the years 1966 to 1970 would offset the steep increases of the white male annual mortality rates. Another interesting phenomenon that can be observed in Figure 2 is the pattern of the curves for the white male and white female mortality rates. If the curve for the white female rates were shifted back one year the yearly differences between the white male and white female rates are smaller and more uniform. Originally the range of differences was from 0.0 to 3.3 per 100,000; whereas, the range was only 0.4 to 1.9 after the white female curve had been shifted back one year. Whether this is a true phenomenon or just a chance occurrence needs to be investigated further.

Status of Residence by County:

Figure 3 shows the distribution of the counties of Oklahoma according to the rural-urban classification defined previously while

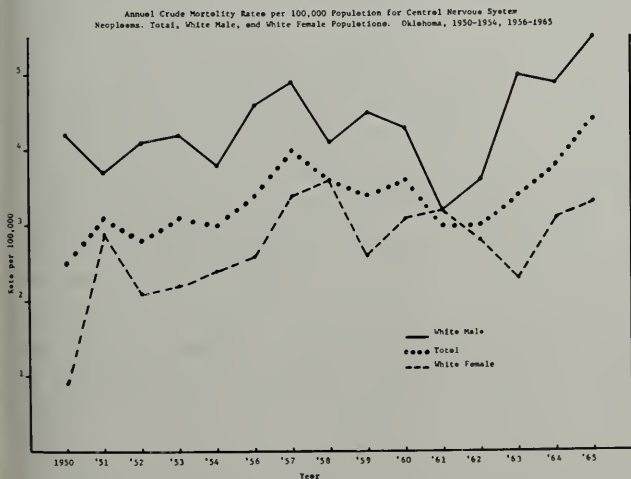


Figure 2. Annual Crude Mortality Rates Per 100,000 Population for Central Nervous System Neoplasms. Total, White Male, and White Female population, Oklahoma, 1950-1954, 1956-1965.

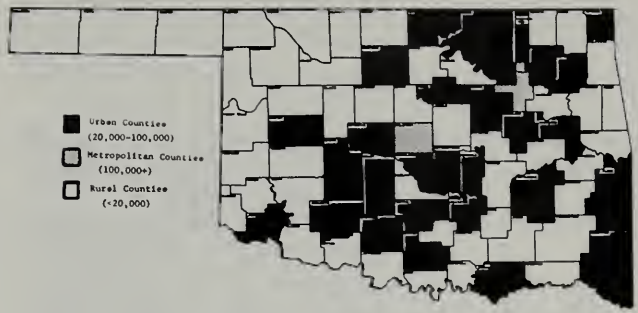


Figure 3. Distribution of Oklahoma Counties by Population, Urban, Metropolitan, and Rural, 1960 census.

Figures 4-6 illustrate the average annual crude death rates for the total, the white male, and the white female populations. These rates were partitioned into quartiles for each of the figures. As a comparison, the ranges for the upper quartiles were from 5.4 to 13.8 for the white male and 3.2 to 7.6 for the white female. It appears that the rural counties tend to have a greater proportion of the higher rates than do the urban and metropolitan counties; 32% of the rural counties are in the upper quartile while only 13.3% of the combined urban-metropolitan counties are in this quartile. However, if the two highest quartiles are combined, 44.6% of the rural and 56.6% of the combined urban and metropolitan are in the upper half of the rates.

It would be inappropriate to state that CNS malignancies occur more frequently in rural than in urban or metropolitan counties based only on crude death rates and proportions which can be defined at any percentile point. One should suspect that there exist differences in the counties due to the age, sex, and race distributions of the population; in particular, rural counties may have a greater proportion of older people due to the migration of the younger generation to the metropolitan areas.

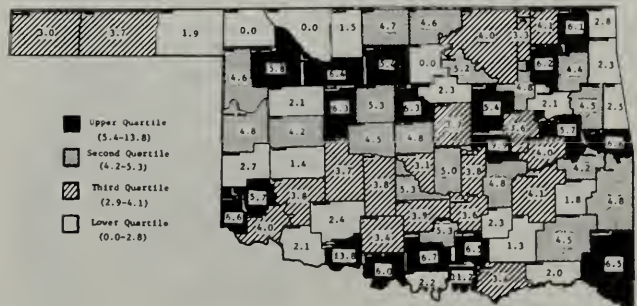


Figure 4. Average Annual Crude Death Rates per 100,000 Population, Oklahoma 1950-1954 and 1956-1965, White Male.

Table 4

Distribution of observed and expected\* deaths from CNS neoplasms by age, sex, race and county category, Oklahoma, 1950-1954, 1956-1965

Age Group	County Category	White Male		White Female	
		Observed deaths	Expected deaths	Observed deaths	Expected deaths
0-14	Rural	13	17.1	15	13.1
	Urban	37	33.3	23	26.0
	Metrop.	26	25.5	21	19.9
	Total	76		59	
15-54	Rural	73	67.6	42	39.1
	Urban	127	138.4	63	79.4
	Metrop.	106	100.8	77	63.3
	Total	306		182	
55+	Rural	67	87.7	44	51.6
	Urban	122	132.8	87	83.6
	Metrop.	105	73.5	53	48.8
	Total	294		184	
Totals		676		425	

\*Expected deaths were tabulated by dividing the total observed deaths for each age group by sex and race over the comparable population at risk for the state then multiply by the appropriate population for each of the county categories.

With this concept in mind the county categories were compared after an adjustment had been made with respect to age, sex, and race. Table 4 shows the distribution of the 1,159 observed and expected deaths according to the age, sex, and county category, given in the section on definitions and methods, for the white population. The expected number of deaths was based on a similar partition of the general population. It should be noted that the number of observed deaths is greater than the expected number

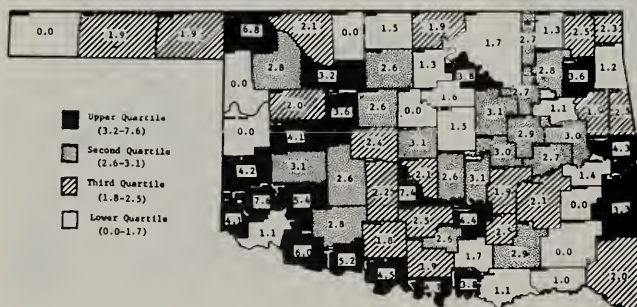


Figure 5. Average Crude Death Rates Per 100,000 Population, Oklahoma 1950-1954 and 1956-1965, White Female.

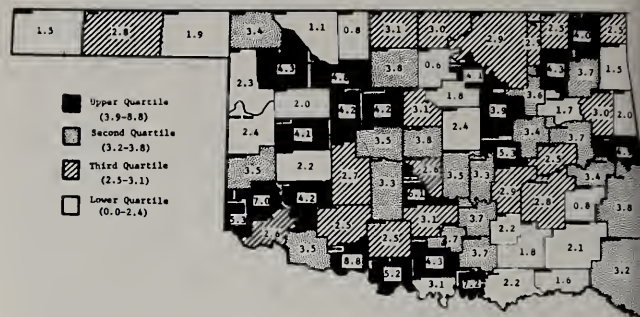


Figure 6. Average Annual Crude Death Rates Per 100,000 Population, Oklahoma 1950-1954 and 1956-1965, Total White and Nonwhite.

of deaths for the metropolitan counties in each cell.

Chi-square tests were used to detect differences between the observed and expected frequencies among the counties for each cell. A significant difference among the county categories exists for the white male population over the age of 55 years ( $p < 0.001$ ). Thus when the age of the white male is taken into account, the metropolitan counties do experience higher rates. White females over 55 years of age also had more observed deaths in the metropolitan counties than expected but the results of the chi-square test were not significant; however, there was a significant ( $< 0.05$ ) difference among the county categories in the 15 to 54 year age group. Here again more observed deaths were recorded in the metropolitan counties than expected.

For an over-all view, chi-square tests were calculated on the total, the white male, the white female, the non-white male, and the non-white female populations with results of  $p < 0.05$ ,  $p < 0.20$ ,  $p < 0.30$ ,  $p < 0.50$ , and  $p < 0.10$  respectively. Based only on sex and race, the white male and the non-white female showed the greatest differences between observed and expected frequencies. All groups had more observed deaths in the metropolitan counties than the expected number of deaths; however, for the small non-white population, the reliability of the data and thus the validity of the test is questionable. Perhaps the results on the non-white population can be used as a basis in designing future studies in the area.

It appears that the white male over 55 years of age and to a lesser degree the white female between the ages of 15 and

54 years are influential in determining the higher mortality observed in the metropolitan counties although each age-sex cell contributes somewhat.

The results of this section can be compared to other studies dealing with urban-rural residency contrasts. The cancer morbidity study in Iowa by Haenszel<sup>3</sup> indicates that the urban-rural ratios of age-adjusted incidence rates for the brain and nervous system is 1.58 for both sexes, 1.76 for males, and 1.42 for females. Similar ratios are recorded in Schuman's<sup>8</sup> study; however, through a histological classification of CNS neoplasms, they suggested that "either rural-farm populations are more susceptible to certain types of brain tumors or that they experience a higher effective exposure to relevant environmental agents than do urban populations."

#### Hospitalization:

The percentage of patients hospitalized with CNS neoplasms increased from 64% in 1950-1954 to 85% in 1961-1965. Thus hospital records may be a valuable source of information in a more detailed analysis of this subject.

#### SUMMARY AND CONCLUSIONS

The epidemiological study of 1,159 deaths from malignant CNS neoplasms in Oklahoma from 1950 to 1965 disclosed the following findings:

The number of deaths and mortality rates for the white male population predominate over the white female population in every year of the study and for almost all age groups.

The distribution of death rates were bimodal for both sexes suggesting that multiple causative mechanisms may play a role in CNS neoplasms. These modes occurred in the 0-10 and 50-70 year age groups.

Of all the reported CNS deaths from death certificate information about 82% were attributed to the brain.

An increasing secular trend was observed in the mortality rates although the rates fluctuated from year to year. The pattern

of curves for the white male and white female mortality rates are similar if the white female rates are shifted back one year.

Hospital records would be beneficial in a more detailed analysis of CNS malignancies since the percentage of patients hospitalized has increased from 64% in 1950-1954 to 85% in 1961-1965.

Higher crude death rates prevail in the rural counties; although when an adjustment is made for age, sex, and race, the metropolitan counties experienced greater mortality than expected. The white male population over 55 years of age was largely responsible for this difference.

An investigation of CNS malignancies for the period 1966-1970 would be of interest in comparison to these results, particularly in observing the secular trend of mortality rates. It is suspected that the annual mortality rates for the white male would decrease following the sharply increasing rates in the 1961-1965 period.

#### ACKNOWLEDGMENTS

The authors would like to express their gratitude to Mrs. Margie Morrison and Mrs. Rose Titsworth for their invaluable help in this project. □

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# Fibrolipoma of Hypopharynx

*Case Report with 20 year Follow up*

L. CHESTER McHENRY, MD  
CHARLES J. WINE, MD

*Benign hypopharyngeal tumors are rare when compared with the frequency of malignant tumors of the same area and are not ordinarily regarded as likely to recur. A case is described which explains why we recommend that patients with benign hypopharyngeal tumors be followed for long periods of time.*

**FIBROLIPOMAS ARE BENIGN** tumors which have been reported as occurring in the esophagus by various authors.<sup>1-7</sup> In our review of the literature, no reports of fibrolipomas in the hypopharynx were found. Several other types of benign tumors have been reported.<sup>8-10</sup>

The symptoms produced by benign tumors of the hypopharynx vary depending upon size, location, and configuration. Dysphagia, regurgitation (of food or tumor), vomiting, hiccups, weight loss, dyspnea, cough, and wheezing are among the most common symptoms. The usual treatment is surgical excision.

## CASE REPORT

A 47-year-old white woman was first seen in 1952 because of dysphagia and complaining of "something in my throat." Upon examination, she could regurgitate a mucosal-covered mass from her hypopharynx which appeared between her tongue and soft palate. A smooth 2 x 4½ x 10 centimeter pedunculated mass was removed from the posterior hypopharyngeal wall at the level of the arytenoid cartilages through a left external pharyngotomy. The histopathological diagnosis was fibrolipoma without evidence of malignancy.

When seen in 1955, the patient was asymptomatic and examination showed no abnormalities. In 1957, the patient returned with complaints of intermittent fullness in the region of her hypopharynx, and indirect laryngoscopy revealed only the healed incision on the posterior hypopharyngeal wall.

In 1964, the patient was seen complaining of expectorating copious amounts of clear mucus and having "to clear my throat" frequently. Examination disclosed a mass in the post-cricoid area obscuring the arytenoid cartilages. The mass was removed from the posterior hypopharyngeal wall. Again, the histopathological diagnosis was fibrolipoma without evidence of malignancy. (Figs 1, 2)

At examinations in 1965, 1966, and 1967, the patient was asymptomatic and indirect laryngoscopy revealed apparent small scar formation on the posterior hypopharyngeal wall.

In January 1972, the patient returned after noting blood in her throat, fullness in her hypopharynx, and mild dysphagia. Examination revealed absent laryngeal crepitus and a small mass was seen on the post-

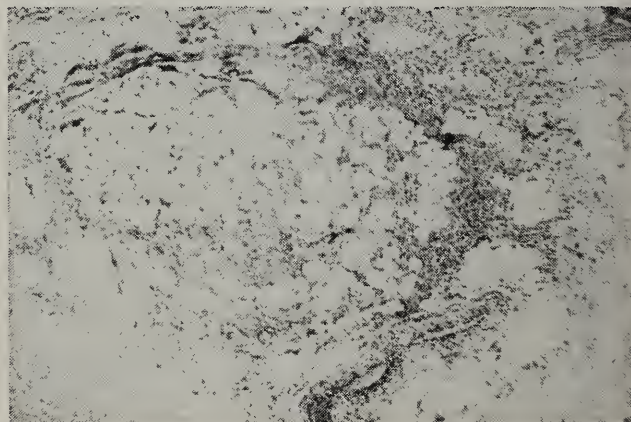


Figure 1. Low-power photomicrograph of the fibrolipoma removed in 1964. (x75) Note the amount of fat present and the degree of regularity of the cells.

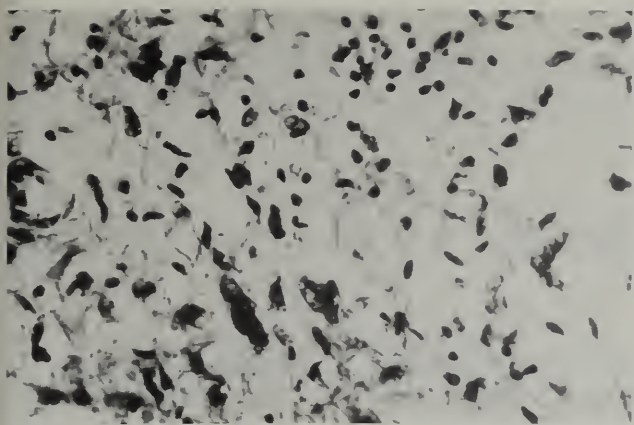


Figure 2. High-power photomicrograph of the fibrolipoma shown in Fig. 1. (x400)

erior hypopharyngeal wall displacing the larynx anteriorly. A right external hypopharyngotomy was done and two masses were removed. One mass was broadly sessile and based on the hypopharyngeal wall opposite the arytenoid cartilages. The other mass was based two centimeters inferiorly on the anterior esophageal wall and had a narrow pedicle. The histopathological diagnosis of both these tumors was well-differentiated liposarcoma. (Figs 3, 4) At subsequent examination, the patient complained of mild dysphagia and indirect laryngoscopy revealed a small mass in the hypopharynx.

In our review of the literature, no case

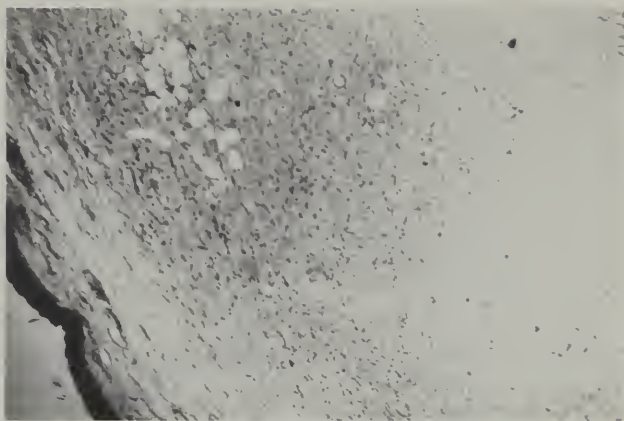


Figure 3. Low-power photomicrograph of the well-differentiated liposarcoma removed in 1972. (x75) Note the increased cellularity when compared with that seen in 1963. (Fig 1)

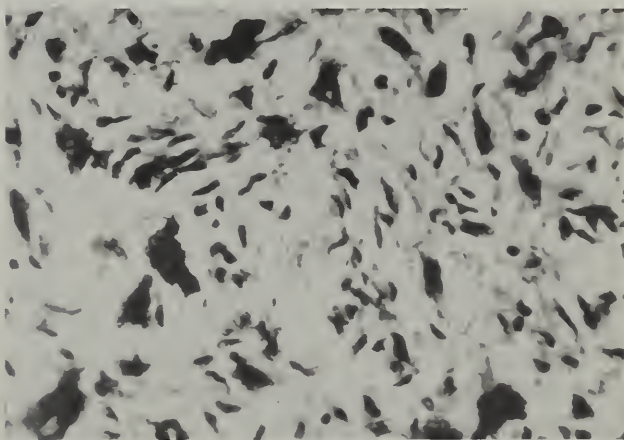


Figure 4. High-power photomicrograph of the well-differentiated liposarcoma shown in Fig 3. (x400)

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of malignant degeneration of a benign hypopharyngeal or esophageal tumor was found. We believe that benign tumors of the hypopharynx may undergo malignant change more often than reported, as the follow-up care customarily given these patients is limited. We advocate that patients with benign hypopharyngeal tumors be followed for long periods of time. □

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# Books As Clinical Tools

## Study of Medical Journals Used By Individual Oklahoma Physicians

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*A four-month study of articles mailed to Oklahoma physicians revealed the journal titles sent most frequently and their publication dates.*

Biomedical journals have grown at such an impressive rate that it is difficult for doctors to maintain in their offices, clinics, or hospitals an adequate supply of medical information at a reasonable cost. Therefore, it is important to see what journals under most circumstances have the highest priority for the clinician. This would, of course, vary depending upon the region of the country, the needs of the doctors, and their specialties.

There is nothing new about a journal usage study, *per se*. But Regional Library Services, the extension division of the University of Oklahoma Health Sciences Center Library, felt that Oklahoma physicians practicing in non-urban areas needed a list based on use of journals by non-urban physicians. Although various journal utilization studies have been conducted, they have served a different purpose.

For example, various analyses have been made of circulation of journals in research oriented medical center libraries. Several excellent examinations of this kind have come from Yale University Medical Library.<sup>1,2,5,6</sup> Also, in 1969, Mr. Wilhelm Moll<sup>3</sup> of the University of Virginia Medical School, produced a list of basic journals for small hospital libraries. His list was based on what twenty-three Virginia physicians, most of them members of hospital library commit-

tees or directors of medical education, selected as necessary for the small hospital library. These studies (excluding Moll's) have tabulated what issues or volumes of journals have been checked out of a library. They have not recorded how many articles, if any, have been used. The Oklahoma study is based on articles sent. It answers two questions. "What journal titles did clinicians ask for specific articles from?" "What journal titles contained the articles librarians sent when a doctor said, 'I have a particular medical problem. Find me journal articles that will help me solve it.'?"

Regional Library Services wanted to know from what five or ten journals it most frequently sent photocopies of articles. We also needed information on the publication dates of the materials sent in order to advise both physicians and small hospitals how long to keep their journals. In addition, we needed to know how many journal titles should be purchased to fill the majority of the information requests of Oklahoma physicians. Would ten do it, or would it take 20, 30, 50, or 100, or more?

The Oklahoma study covered the months October, 1971 through January, 1972. During this particular four-month period, requests came from physicians in thirty-one Oklahoma towns outside of Oklahoma City and Tulsa. Regional Library Services received two types of requests from doctors. The physician either asked for a particular article in a specific journal, or he wanted journal literature on a subject area. The librarians had the desired articles photocopied and mailed to him. Twelve hundred and twenty-two articles were sent out, of which seven hundred fifty-seven, or ap-

TABLE 1

Under requests are included both specific titles asked for by the requestor, and titles selected by our staff and sent as the result of a user request for information on a particular subject.

JOURNAL TITLE	TOTAL NUMBER OF ARTICLES SENT (All years of publication)	NUMBER OF ARTICLES SENT (Published during 1967-1971)
<i>New England Journal of Medicine</i>	89	75
<i>Lancet</i>	63	60
<i>Journal of the American Medical Association</i>	60	47
<i>Annals of Internal Medicine</i>	48	40
<i>British Medical Journal</i>	44	39
<i>Gastroenterology</i>	19	15
<i>Pediatrics</i>	18	13
<i>American Journal of Medicine</i>	17	11
<i>American Journal of Obstetrics and Gynecology</i>	16	16
<i>Journal of Pediatrics</i>	15	15
<i>Medical Clinics of North America</i>	15	15
<i>Canadian Medical Association Journal</i>	14	13
<i>Medical Journal of Australia</i>	14	14
<i>Obstetrics and Gynecology</i>	14	14
<i>Surgical Clinics of North America</i>	14	13
<i>American Journal of Surgery</i>	12	9
<i>Archives of Internal Medicine</i>	12	10
<i>New York State Journal of Medicine</i>	12	10
<i>Practitioner</i>	12	12
<i>American Heart Journal</i>	11	10
<i>Archives of Surgery</i>	11	6
<i>British Journal of Surgery</i>	10	8
<i>California Medicine</i>	10	10
<i>Diabetes</i>	10	10
<i>Anesthesiology</i>	9	9
<i>Archives of Ophthalmology</i>	9	4
<i>Clinical Orthopaedics</i>	9	8
<i>Journal of Obstetrics and Gynaecology of the British Commonwealth</i>	9	8
<i>Medicine</i>	9	5
<i>Postgraduate Medicine</i>	9	9
<i>Surgery, Gynecology, and Obstetrics</i>	9	6
<i>American Journal of the Medical Sciences</i>	8	6
<i>American Review of Respiratory Disease</i>	8	6
<i>Annals of Surgery</i>	8	3
<i>Journal of Clinical Investigation</i>	8	6
<i>Journal of Urology</i>	8	8
<i>Proceedings of the Royal Society of Medicine</i>	8	8
<i>Southern Medical Journal</i>	8	8
<i>American Journal of Ophthalmology</i>	7	3
<i>American Journal of Public Health</i>	7	6
<i>Archives of Dermatology</i>	7	6
<i>Journal of Clinical Endocrinology and Metabolism</i>	7	6

25.4% \*

33.6% \*

51.9% \*

\*The percentages indicated refer only to the last five years.

proximately 62%, were the articles sent by one of the librarians after she searched the medical indexes. Therefore, the data show not only what the physician himself asked for specifically, but what the librarian picked to be the journal articles that best answered the immediate, clinically related problem on which the physician wanted information. On some occasions, the physician mentioned a

particular journal; ie, *New England Journal of Medicine*, in which he wanted an article he had previously seen, but did not remember in which issue he had read it.

Regional Library Services also maintained statistics on journal photocopies sent to physicians in institutions with libraries. However, these were not included in this study, nor were the figures on journal ar-

ticles sent to allied health professionals included. Another report will be written on these.

The data collected during the four-month period showed a strikingly heavy usage of five medical journals by physicians in Oklahoma. Of the two hundred ninety-two titles sent in this period, five were sent forty-four or more times. These are all well-known journal titles: *New England Journal of Medicine*, *Lancet*, *Journal of the American Medical Association*, *Annals of Internal Medicine*, and *British Medical Journal*. The usage of other journal titles falls off rapidly with the sixth title and then gradually decreases with other titles. (See Table 1) The same general pattern of usage of these top five journals is shown whether the most recent years (last five years published) are considered or whether all years of publication are included.

It is also of interest that while the specific titles used most heavily may vary in studies at several medical libraries, the pattern still emerges that a rather short period of time satisfies the major need for articles from a journal title, although the percentage varies in the different analyses.<sup>4,5,7</sup> The Oklahoma study shows that slightly more than 84% of the use of the top five journals occurred in the most recent five-year period of publication. (See Table 2) For all the journal articles sent during this study, a

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TABLE 2

NUMBER OF ARTICLES SENT-BY YEAR OF PUBLICATION—ALL JOURNAL TITLES INCLUDED

YEAR PUBLISHED	NUMBER OF ARTICLES SENT
1971	336
1970	334
1969	194
1968	104
1967	62
1966	31
1965	34
1964	16
1963	14
1962	10
1961	17
1960	7
1955-59	29
1950-54	16
1945-49	6
1940-44	6
1930-39	2
1920-29	1
1910-19	0
1900-09	3
	<hr/> 1,222

five-year collection would have provided 84.2% of the articles dispatched. If only the five most recent publication years of the top five journals had been available, 21.4% of all the articles sent during the four-month period could have been delivered. If the last five years of publication of the top eleven journals are considered, the percentage of articles sent could have risen to 28.3% of those needed during the study period.

If we consider only articles published in the last five years, the five top journal titles would have provided 25.4%, and eleven titles would have provided 33.6% of the articles sent from that time span. Thirty-one titles provided 51.9% of the articles delivered from the last five years of publications. (See Table 1)

It should be kept in mind when considering the above data that the percentage of needs filled by the top five or eleven journals is a minimum figure. The results of the study do not necessarily mean that if a hospital had only the last five years of the top five journals listed that only 21.4% of its physicians' requests for recent articles could be answered. It is possible that in a hospital library one article from the *New England Journal of Medicine*, for example, might well fulfill a physician's need for information;

whereas in response to his request for a literature search, Regional Library Services may have chosen to send the *New England Journal of Medicine* article plus several others available from the University of Oklahoma Health Sciences Center Library collection.

Several titles, when considered by subject groupings, show a need for a particular type of journal, if not a particular title within that subject. For instance, no surgery journal falls within the top eleven. However, several surgery journals received moderately heavy use. It would appear that in even a small collection a surgery journal would be needed but that the choice might be difficult.

Toward some journals there may be a certain bias held by doctors but not by librarians that is not revealed by this study. As stated earlier, only 38% of the articles were sent at the direct request for a specific citation. In the other cases, librarians chose articles listed in the indexes that seemed to fulfill the need for information expressed by the physician. Nevertheless, assuming some validity in the choice of the librarians and considering the direct choice by doctors in many cases, it is interesting to compare results with those of Wilhelm Moll's study mentioned above.<sup>3</sup> The top eleven titles chosen in the Moll survey (excluding *Index Medicus*) are shown in Table 3. The *British Medical Journal* and *Lancet*, which have provided many helpful articles in our work, did not rank high in the Moll list.

It was hoped in launching this investigation that it would be discovered that a small number of journal subscriptions, kept for just a few years, would provide a large percentage of the information needs of the clinically-oriented doctors on the staffs of small hospitals in Oklahoma. The results do not bear this out, yet they seem to show that for the active clinician a five-year back file of a journal provides quite a reasonable percentage of the usefulness of a journal (84%). However, from the point of view of a twenty-five to fifty bed hospital, the number of titles used in our four-month span to provide approximately 50% of the articles sent from journals published in the last five years is rather large. Thirty-one titles were used to fulfill that need. Five

TABLE 3  
TOP JOURNAL TITLES SELECTED IN  
WILHELM MOLL SURVEY

Twenty-three physicians voted in Moll's survey

JOURNAL TITLES	NUMBER OF VOTES RECEIVED
<i>New England Journal of Medicine</i>	23
<i>Annals of Internal Medicine</i>	21
<i>American Journal of Diseases of Childhood</i>	20
<i>Journal of the American Medical Association</i>	20
<i>Archives of Internal Medicine</i>	19
<i>Surgery, Gynecology, and Obstetrics</i>	19
<i>American Journal of Surgery</i>	18
<i>American Journal of Obstetrics and Gynecology</i>	17
<i>Annals of Surgery</i>	17
<i>Cancer</i>	17
<i>Medical Clinics of North America</i>	17

titles provided 25% of recent articles and eleven titles provided 33% of recent articles. While these figures probably represent a minimum fill rate possible from the top titles, it does show that a problem in getting an adequate supply of medical information at a reasonable cost exists for the physician in the small hospital.

We would not state that the five, ten or thirty most heavily sent titles are the ones a physician should have available to him in his office, clinic, or hospital. The doctor's specialties and needs as well as other factors affect individual buying choices. However, our study based on usage in non-urban Oklahoma should be helpful to the physician in determining what journals have the highest priority for him in maintaining an adequate supply of medical information. □

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## News From The Oklahoma State Department of Health

### RABIES IN A PET SKUNK

In late June, a young skunk was found by a family in Gibson County, Tennessee, and adopted as a family pet. A few days later, the family traveled to Florida and took their pet. During the trip the skunk became ill, and after the family returned to Tennessee, it died on July 17. The State Laboratory in Nashville subsequently reported that the brain was positive for rabies by the fluorescent antibody test.

All five family members, two adults and three children, were exposed to the rabid skunk and are receiving antirabies prophylaxis. One child, an 11-year-old boy, who is hypersensitive to eggs, is being treated with a non-avian tissue rabies vaccine provided

through the Center for Disease Control.

In addition, three persons who were exposed to the skunk in Florida are currently receiving antirabies prophylaxis.

Editorial Note: Wild animals are **not** suitable pets and may expose a family to an unwarranted risk. Indeed, in at least one state (Oklahoma) it is unlawful to have a skunk for a pet. In many parts of the United States (e.g. Oklahoma) skunks must be considered rabid unless proven otherwise.

The only rabies vaccine available commercially in this country is Duck Embryo vaccine (Eli Lilly). The contraindications for its use are hypersensitivity either to the vaccine or to egg protein. A supply of non-avian tissue rabies vaccine may be obtained through the State Department of Health. Any physician who needs this product should contact the State Epidemiologist, 405-271-4060 (night and weekends included). □

#### REFERENCE

Zoonosis Surveillance Report, March and April 1973, Center for Disease Control.

### COMMUNICABLE DISEASES IN OKLAHOMA FOR AUGUST, 1973

Disease	August 1973	August 1972	July 1973	1973	1972
Amebiasis	5	1	6	25	20
Brucellosis	1	2	1	5	5
Chickenpox	9	7	26	1302	150
Encephalitis, infect.	26	3	36	89	11
Gonorrhea	837	853	883	7024	6739
Hepatitis, infect. & serum	51	63	81	730	589
Leptospirosis	—	—	—	—	1
Malaria	—	1	1	2	5
Meningococcal infections	3	—	10	28	6
Meningitis, aseptic	37	7	24	82	36
Mumps	20	3	40	432	158
Rabies in animals	4	20	8	137	238
Rheumatic fever	2	—	1	12	24
Rocky Mt. spotted fever	6	8	17	68	32
Rubella	2	—	10	179	34
Rubella, congenital syn.	—	—	—	—	—
Rubeola	2	1	2	53	10
Salmonellosis	42	10	31	165	90
Shigellosis	10	33	29	149	95
Syphilis, infectious	13	115	7	116	74
Tetanus	—	—	—	3	1
Tuberculosis, new active	27	26	27	212	216
Tularemia	1	—	5	19	8
Typhoid fever	—	1	—	2	2
Whooping cough	2	3	4	20	26

## OSMA Professional Liability Strong and Viable Program

Recent changes in the OSMA's Excess Limits Insurance Program set off rumors about the association's Professional Liability Insurance Plan with the Insurance Company of North America. Although INA did drop its excess limits policy, the professional liability plan is strong, viable and considered one of the best bargains around.

Early this year INA decided that it would stop writing excess limits policies nationwide. These are umbrella insurance policies carried in addition to a person's normal insurance to extend his coverage up to \$1,000,000. The OSMA XIC Program fell victim to INA's national change. However, this change did not affect the INA Professional Liability Program with the OSMA.

Even the change in the XIC program was carried out with the medical association's permission. On June 18th the OSMA Insurance Council voted to allow INA to drop the Excess Limits Policy provided it could be picked up by another carrier. CNA (Continental-National-American) undertook to write the policy in Oklahoma at a slight rate increase. As each XIC policy becomes due and renewable, the policy holder is being informed that INA no longer writes that type of insurance and is being asked if he will accept CNA.

In the meantime, the association's Professional Liability Insurance still remains one of its members best buys.

Underwritten by the Pacific Employers Group, a wholly owned division of the Insurance Company of North America, the Professional Liability Program is still 43 to 47 percent under the national bureau rates for similar coverage in Oklahoma.

INA has already informed the association that it will not ask for a premium increase when the plan comes up for renewal on January 1st, 1974.

The following chart shows the savings

Oklahoma physicians are enjoying over what their premium would be under a bureau company.

Class	OSMA Rate	Oklahoma Bureau Rate	Percent of Savings
1	\$169	\$296	43%
2	\$297	\$517	43%
3	\$590	\$1,123	47%
4	\$786	\$1,497	47%
5	\$983	\$1,871	47%

Oklahoma physicians should remember that the above cited OSMA rates are based on the basic plan without any additional riders.

Association members pay a lower premium for their professional liability coverage than do their colleagues in five surrounding states of Colorado, Kansas, Missouri, Arkansas and Texas.

Professional liability coverage is provided in Oklahoma by an agreement between the OSMA and the Insurance Company of North America. This agreement has been cited nationwide for its effectiveness.

One benefit of the agreement was the publication of a booklet entitled "Professional Liability Medical-Legal Guide for Physicians." The book was prepared by the OSMA staff and printed by the Pacific Employers Group for distribution to all Oklahoma physicians. It contains information on the reporting of claims, the avoiding of claims, important doctrines of law and a series of medical-legal forms that can be used in a physician's office.

Copies of the booklet are available from the OSMA office in Oklahoma City.

While OSMA members are enjoying the benefit of a low cost professional liability program, the same cannot be said for their colleagues in other states. There is no comparison between Oklahoma rates and those being paid by physicians in California, as an example. While a Class 5 Oklahoma physician pays \$983 each year for his coverage, a Class

1 physician in California pays \$915. There is almost no comparison between the Class 5 Oklahoma physician and the Class 5 California physician, who is paying an astronomical \$5,783 per year for his basic professional liability coverage of \$100,000/\$300,000.

Any physician hearing a rumor or being told that their basic professional liability insurance coverage is being cancelled or dropped should contact the OSMA Executive Office. □

### **Automotive Medicine Conference Set For Oklahoma City**

Oklahoma will be the site of the 17th Annual Conference of the American Association for Automotive Medicine. Set for November 14th-17th, the meeting will be held in Oklahoma City's Hilton Inn West.

The Oklahoma State Medical Association is joining with the University of Oklahoma Health Sciences Center, the Oklahoma State Department of Health, the State Department of Public Safety and the Federal Aviation Administration to sponsor the AAAM meeting.

While the AAAM was originally organized to encourage physicians to become involved in traffic safety, its purpose has now been broadened to include interest in all areas of the medical aspects of automotive safety. It encourages and sponsors laws and regulations to improve the standards for licensing of drivers, encourages the use of appropriate protective devices, supports and encourages research in the effects of disease and disabilities on driver capabilities, and encourages and promotes the growth and dissemination of new knowledge in the field of traffic and vehicular safety.

A blend of business and pleasure has been worked out so that the three-day meeting will be both enjoyable and informative. The scientific sections on Thursday, November 15th, will cover such topics as data collection and analysis, advanced belt restraint systems, discussions on the air bag restraint system, and the mandatory use of seat belts.

Friday morning, November 16th, will be

devoted to discussions of motor vehicle injuries. Friday afternoon there will be topics on motor carrier safety and emergency medical service.

Saturday, November 17th, there will be discussions on alcohol and drugs as it relates to vehicle safety, and drivers standards as related to licensing.

The social highlight of the meeting will take place on Thursday with an "Evening at the Western Heritage Center." Cocktails will be served in the center's hall of fame, followed by a chuck wagon dinner, and then there will be a conducted tour of the entire Western Heritage Center. Friday evening there will be a social hour with no formal meal. This will give persons attending the meeting an opportunity to dine in one of the many fine restaurants in the area.

Persons wishing to attend the meeting should contact Albert Carrière, Executive Secretary, American Association of Automotive Medicine, 801 Greenbay Road, Lake Bluff, Illinois 60044. □

### **Oklahoma Lupus Association Schedules Symposium**

The Oklahoma Lupus Association will hold a Lupus Symposium on Saturday, October 27th, 1973, at the Tropicana Inn in Oklahoma City. Sponsor for the one-day meeting will be the Oklahoma Arthritis Foundation. Physicians will lecture on the diagnosis, treatment and characteristics of systemic lupus erythematosus, a rheumatic disease which attacks the connective tissues of the body.

The newly formed Oklahoma Lupus Association was organized for the purposes of: Supporting and stimulating research of SLE and related conditions; uniting victims of the disease as well as providing moral support and group strength; and, providing the public with educational information concerning the disease.

All lupus victims, members of the medical profession and other interested persons are encouraged to attend this event. Further information may be obtained by calling 942-2722 or 947-2617, or writing to the Oklahoma Lupus Association, 3848 N. W. 31st, Oklahoma City, Oklahoma 73112. □

## National Health Insurance

Long Joins Ribicoff

Senators Russell Long and Abraham Ribicoff appear to be making a play for some diversified backing of their National Health Insurance proposal.

The Senators from Louisiana and Connecticut have expanded their own NHI proposal to make it more appealing to private health insurance companies and labor unions. Long, Chairman of the Senate Finance Committee, and Ribicoff, a ranking member of the panel, had said earlier that they would propose a combination of catastrophic health insurance and a program of coverage for low income families to replace Medicaid.

The addition to the proposal requires that the bill be redrafted. In the meantime, private insurance companies are awaiting the proposal with great interest because of the status of the two sponsors. It is expected that the bill will call for a method to assure quality of health insurance purchased by the middle-income class and establish insurance pools for lower-income families.

Senator Long has been concentrating his efforts on putting together an NHI proposal that would have a possibility of Congressional passage.

The two senators would like to persuade labor unions to back their bill as something that can pass, as opposed to the all or nothing concept of the "Health Security" bill being sponsored by Senator Kennedy.

### Kennedy-Griffith Bill

The "Health Security Bill," sometimes referred to as the Kennedy-Griffith Bill, picked up support from a former surgeon general of the United States, Jesse Steinfeld. The doctor announced at a Washington press conference that he was joining the Committee for National Health Insurance, the labor-backed organization that wrote the bill originally.

### Administration Proposal

Although President Nixon has singled out National Health Insurance as his number one priority in the field of health legislation,

concrete proposals have not been forthcoming. The delay may have been explained in the President's recent message to Congress in which he pointed out that the Congressional calendar was too crowded and that any real work on NHI couldn't be done until next year.

In the meantime, some insight into what the administration may propose came from an unusual source. Senator Kennedy released a memorandum on National Health Insurance that was prepared by the HEW staff. The memo purportedly reflects a number of basic decisions reached by HEW Secretary Weinberger and brings up some other areas where agreements and decisions are needed.

The memo indicated that the administration's NHI plan would have two parts, the standard employer plan and the government assured program. Basic difference between the two would be their source of financing and the amount of co-insurance and deductibles under each, but each would cover the same services.

Under the Standard Employer Program, referred to as SEP, a standard benefit package would be specified and all employers would be required to offer it to their fulltime employees. While the premium would be shared by the employer and employee, the employer would pay the larger amount, as much as 65 to 75 percent.

An employer could elect to self-insure his employees or he could contract for coverage and negotiate premium rates with a private carrier.

The memo indicated that private insurance companies could provide coverage to different groups or individuals at different prices, as indicated by their experience or loss factors. All insurance companies wishing to participate would be required to meet minimum federal standards as to cost control, information disclosure practices, assurance of financial solvency, and an acceptable utilization review program.

Four options available to the employee were outlined in the memo, but a final decision apparently had not been reached on two of them. It did appear that agreement had been reached on whether or not the employee could accept the standard plan offered by his employer or participate in the

government assured program, known as GAP. However, the memo indicated that in the latter choice this would only be realistic for a worker having a family income below \$5,000.

The two options still up in the air provided that an employee could elect no coverage or accept an HMO option.

The HMO option was hooked to a provision of the proposal in which a decision was still pending. This section would require employers with more than 25 employees to offer their employees an HMO option, provided an approved HMO plan existed in their area.

The Government Assured Program, GAP, would be limited to low income workers (e.g., those having a family income below \$5,000), non-employed or self-employed persons with high medical risks, or some employee groups with poor medical experience. All other groups would be able to obtain coverage privately but at lower rates.

A limited number of carriers in each region of the country would be authorized to sell a minimum benefit package. Carriers would be required to underwrite coverage for all applicants at an established premium rate to be set in each region. However, individual premiums would be scaled to a person's income.

One other basic decision is apparently still pending in the administration, and that is whether or not all individuals should be required to have a prescribed minimum health insurance coverage. □

## Oklahoma Governor Creates Committee To Combat Cancer

In mid-September Governor David Hall announced the creation of the Governor's Committee to Combat Cancer. The stated goal of the committee is to coordinate and improve existing services for cancer patients in Oklahoma and make existing cancer fighting resources and know how more readily available to all citizens.

Mark R. Johnson, MD, Editor of *The Journal*, has accepted the Chairmanship of the 25-member committee representing public and private cancer care facilities, professional and voluntary health groups, and laymen. Vice-Chairman is Adolph Vammen, MD, Tul-

sa gynecologist and President of the Oklahoma Division of the American Cancer Society.

C. Riley Strong, MD, President of the OSMA, is a member of the committee.

Governor Hall has announced that he will ask the Legislature for a special appropriation of approximately \$100,000 to launch the committee's effort with the hope that development of an exemplary state cancer control plan would put Oklahoma in the running for designation as a regional cancer center under the federal Conquest of Cancer Program.

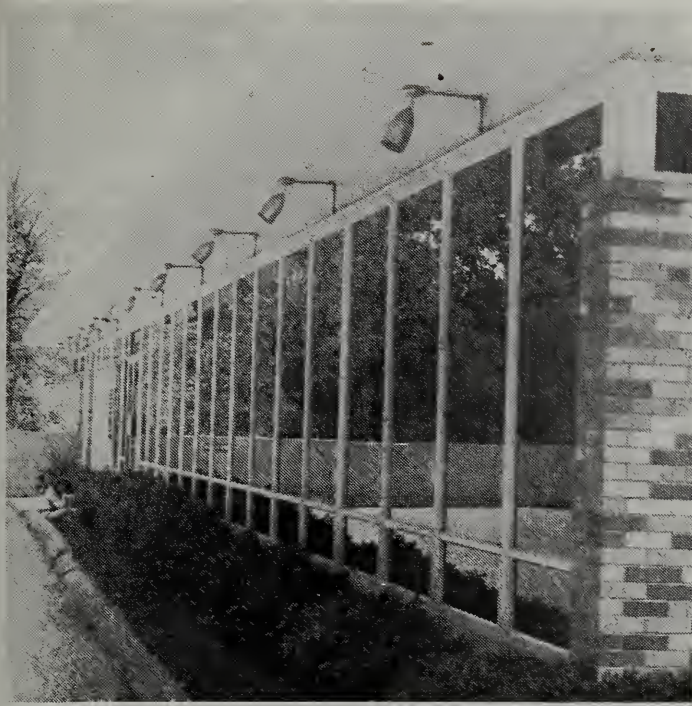
An initial project of the committee will be a search for Oklahomans who, because of obvious symptoms, family history or other factors, would be considered high risk cancer candidates.

Questionnaires with key questions will be distributed to all adults in a pilot survey area. Those whose answers indicate that they might be cancer prone will be encouraged to see a physician. If the trial run proves fruitful, such a survey would be conducted statewide.

Another committee project will be aimed at physicians and include a "cancer question-line" telephone manned by specialists to answer inquiries on cancer problems from physicians across the state. A continuing education "road show," with a team of cancer experts, is being considered. It would be available to give scientific presentations to local county medical and dental societies across the state.

In his announcement of creation of the committee the Governor placed primary emphasis on early detection of cancer. He said, "Our primary objectives will be to find lost cancer patients and persons with undetected cancer. I use the word 'lost' because they don't know where to turn for help. A pilot survey will be conducted using an innovative questionnaire which should help us pinpoint persons who are high risks. They will be alerted and encouraged to seek medical advice."

Earlier the Governor had said, "Half of the people who get cancer today could be saved. . . cured with the superb facilities and skilled physicians available in Oklahoma right now . . . if only the disease is found and treated early." □



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## PSRO Plagued With Many Problems

A lawsuit, resignation, lack of action and an internal power struggle all play a part in the latest problems with PSRO.

William I. Bauer, MD, a Greeley, Colorado physician, resigned as head of PSRO effective October 1st. He had been personally recruited by HEW Secretary Casper Weinberger for the job. He cited limited resources and a lack of commitment to the PSRO program as his reasons.

In a letter to Charles Edwards, MD, Assistant Secretary for Health, Bauer said that the administration's commitment to Professional Standards Review Organizations "has not been translated into action by Health." The reference to Health, with a capital H, was a direct slap at Doctor Edwards office.

In his letter he stated, "This extremely complex program, with ramifications at all levels of medical care, has been provided with limited resources, and those resources that were made available could not be effectively administered and utilized because of the organizational structure."

It was pointed out that funds for the PSRO office came from three different HEW agencies and that operations were being handled by one office and policy by another.

The Senate Finance Committee, which wrote the PSRO law, is said to be upset about this latest development and talking about amending the statutes to put the whole operation into the Social Security Administration.

For some time an internal power struggle has been going on in HEW about who would run PSRO. The SSA had made no secret of its desire to have the whole program, and had taken some presumptive steps in that direction right after the law was passed.

While Bauer's resignation might give SSA an edge, Washington observers noted that Secretary Weinberger named Henry Simmons, MD, as temporary head of the office. Simmons has been Doctor Charles Edwards's Deputy in the Office of Health.

Another thing that is keeping the PSRO pot boiling is a lawsuit filed in the U. S. Dis-

trict Court in Illinois challenging the constitutionality of the entire program.

The complaint was filed by the Association of American Physicians and Surgeons on behalf of its members and by three Chicago-area physicians who were not members of the organization.

Alleging that the PSRO law is unconstitutional as violative of the 1st, 4th, 5th, 7th, and 9th amendments, the lawsuit asks that the Secretary of HEW be restrained from implementing the law.

The AAPS lawsuit states that the PSRO law will infringe upon the right of the patient to select his own physician, and upon the right of the physician to practice medicine. It further alleges that that portion of the act which grants immunity from common law tort liability to persons providing information to PSRO is unconstitutional and that the law's provision for disclosure of information from physician's files would be violative of four constitutional amendments.

The outcome of the federal lawsuit will be watched with interest by the medical profession. □

## Sports Medicine Group To Meet

The Central States Chapter of the American College of Sports Medicine will conduct their annual meeting on December 8th, 1973 on the University of Kansas campus in Lawrence.

Speakers for the one-day session will be: Tom P. Coker, MD, Fayetteville, Arkansas, who will discuss "Ligament Injuries in Sports." "Physical Fitness of Children" will be presented by Charles B. Corbin, PhD, who is with the Kansas State University. "Cryotherapy in Sports" will be explained by W. C. Tice from Northwest Missouri State University. Barry S. Brown, PhD, of the University of Arkansas, will discuss "Anabolic Steroids and Physical Performance."

Registration for the meeting will be \$2.00 per person. Additional information may be obtained from Doctor Harley Hartung, Department of Physical Education, Central Missouri State University, Warrensburg, Missouri 64093. □

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## Medical Heritage Committee Seeking Artifacts and Records

A project designed to preserve Oklahoma's medical heritage is being formulated by the OSMA Medical Heritage Committee. The latest effort is a letter from Committee Chairman George Garrison, MD, to selected physicians throughout the state asking for information.

Purpose of the letter was to locate early photographs, manuscripts, office records, newspaper stories and even personal accounts of early day medical happenings. The committee is also interested in acquiring early medical instruments.

In his letter Doctor Garrison asks the physicians, "If you know of the location of any such material or if you have any such material that you would like to turn over to the committee for preservation, please let us hear from you."

In a related effort, the OSMA has joined with the Pharmaceutical Association, Dental Association, Nurses Association, Hospital Association, and Veterinarian Association to establish a Medical Heritage Liaison Committee.

In its report to the OSMA House of Delegates during the annual meeting the committee said, "Our history is replete with stories about the activities of nurses, midwives, and even 'horse doctors', being the only source of medical help and responding with compassion and professionalism. These stories and the physical evidence to support them should not be allowed to perish, since they are an integral part of our medical heritage."

The report then went on to ask the House of Delegates permission for the committee to enter into the liaison with the other associations.

Anyone having knowledge of early-day medical artifacts or medical information is urged to contact the OSMA executive office. The committee is also attempting to develop leads on such material. As an example, they would like to know of the existence of families of early physicians. □

## HMO Legislation Advancing In Congress

Legislation providing federal aid for establishment of a limited number of experimental Health Maintenance Organizations, known as HMOs, has advanced in Congress. The House bill was much smaller in scale than one passed in the Senate, \$240,000,000 as compared to \$805,000,000.

While Congress was debating HMOs, no less a prestigious publication than the *Wall Street Journal* was editorializing on the same subject. In a September 6th editorial the journal said, "... the HMO debate will ... pit two opposing theories of government. It will be a good opportunity for Congress to demonstrate that it has moved beyond the kind of thinking, so common in the sixties, that tackles complex problems—to lift a Nixon phrase — by 'throwing money at them'."

The editorial pointed out that while HMOs are attractive, they are untested and there seems to be no reason why a modest testing program shouldn't be carried out before Congress commits the nation's wealth to such a concept.

The editorial stated, "If the HMOs really are a better idea, they will prove their worth if government merely provides them with opportunities to grow freely. The Kennedy approach is to ram them down everyone's throat."

Senator Kennedy was the primary sponsor of the \$805,000,000 bill that passed the Senate. His original proposal called for the expenditure of \$5 billion in only three years. The House calls for the expenditure of \$240,000,000 over a five-year period.

In a report on the HMO bill, the House Commerce Committee discussed HMOs and their possible future role in health delivery. While no specific number limitation was set in the House bill, the report said, "... the committee would anticipate that this legislation would be used to bring to the operating stage approximately 100 new HMOs."

The report then went on to stress a five-year cutoff. "All federal assistance to all assisted HMOs will be completed by the end of five years for which authority is given. Thus, there will be no need to extend or renew this legislation in order to meet out-

standing commitments." The Kennedy proposal made it clear that assistance to the HMOs would probably be perpetual.

A key statement in the Health Committee report said, "... the HMO program sponsored by this legislation would not represent a single monolithic or federally controlled health system, but a series of additions to our existing pluralistic system."

While supporting the House approach to HMOs, the *Wall Street Journal* editorial ended with this statement: "It is time to bury the idea that complex problems must always be tackled with dramatic, sweeping programs. Too often, such programs are characterized by lack of sufficient thought, a waste of taxpayer money and benefits to all sorts of people except those who have the problem." □

## Rural Practice Scholarships Given To Future MDs

Two future medical doctors have promised that they will practice at least one year in a rural Oklahoma medical community after they complete their medical training. After signing a contract with the Oklahoma Foundation for Community Medical Care, the two O. U. medical students received \$2,500 checks from Ed Calhoon, MD, President of the Foundation.

The two students are James K. Robberson from Lindsay and Terry L. Wagner from Terral, Oklahoma. Both are entering their first year of medical training at the OU Health Sciences Center.

Rural scholarships are part of a plan devised originally by the OSMA to encourage young physicians to serve in rural Oklahoma. In return for a pledge to serve in a rural community chosen by the association, a medical student could receive a financial grant to help him complete his medical training. Generally he pledged a year's service in return for a year's grant.

A separate organization, known as the Oklahoma Foundation for Community Medical Care, was formed by the OSMA to handle the program. Previously each year Oklahoma physicians had put about \$10,000 into a loan and scholarship fund from their

medical association dues. By switching over to a foundation, this annual contribution could be augmented by special contributions from interested communities and individuals. In addition, the OSMA pledged to the foundation all monies it received for repayments of its earlier loans. This should amount to over \$60,000.

At the present time the foundation is helping underwrite the educational expenses of six future MDs.

While announcing the two latest presentations, Doctor Calhoon, himself a rural physician in Beaver, said, "We feel that many of these future physicians will find that they enjoy rural medical practice and will stay on after their obligations are completed."

Terry L. Wagner is a 1965 graduate of the Terral High School. He completed a Bachelor of Science degree in zoology in 1969 at OSU and returned to OSU in 1972 to complete the requirements for a teacher's certificate. Following his 1969 graduation he served two years in the Peace Corp in South Africa as a secondary education teacher and a zoologist for the Ministry of Agriculture.

James K. Robberson graduated from the Lindsay High School in 1968 and completed his Bachelor of Science degree in zoology at OU in 1973. He is married to Norma Juhree Robberson.

Members of the Oklahoma Foundation for Community Medical Care include five physicians and five state business leaders. The business leaders are Lloyd R. Barby, a rancher from Beaver, Oklahoma; Archibald C. Edwards, an investment consultant in Oklahoma City; J. M. Rector, II, an El Reno banker; Guy Swadley, Jr., a wholesale grocer from Eufaula; and William Wise, a publisher from Idabel, Oklahoma.

Medical members of the Foundation are Ed L. Calhoon, MD, from Beaver, the current Chairman; C. Riley Strong, MD, El Reno, President of the OSMA; Hillard E. Denyer, MD, Bartlesville; Stanley R. McCampbell, MD, Oklahoma City; and Lucien M. Pascucci, MD, Tulsa. All of the medical doctors on the board are Past Presidents of the OSMA with the exception of Doctor Strong, the current President. □

## **Twelve Oklahoma Physicians Served In Project Viet Nam**

As the war in Viet Nam wound to a close, Project Viet Nam . . . the AMA's Volunteer Physicians For Viet Nam . . . was terminated. The last physician-volunteer departed from Viet Nam prior to June 30th, 1973 and the project office in Saigon was closed.

During the eight-year period of operation twelve Oklahoma physicians served fifteen tours of duty in the Southeastern Asian country. Nationwide a total of 774 physicians served 1,029 two-month tours.

Volunteer American physicians administered to the South Viet Nameese people by serving in provincial hospitals throughout the country.

Oklahoma's last volunteer to go to Viet Nam was John E. Horn, MD, of Muskogee.

He departed sometime after July 1st, 1972.

Three Oklahomans either extended their stay in Viet Nam or returned for a second tour of duty. These included Roy W. Anderson, MD, Cordell; Richard A. Conley, MD, Watonga; and Jack Darryl Welsh, MD, Oklahoma City.

J. Ted Herbelin, MD, Oklahoma City served a long term tour in the program.

Other volunteer Oklahomans included David B. Brinker, MD; Gale R. Kimball, MD; and Wayne B. Lockwood, MD; all of Oklahoma City. Arthur Brown, MD, Perry; Charles E. Green, MD, Lawton; Richard F. Harper, MD, Pawhuska; and David F. Watson, MD, Muskogee round out the Oklahoma volunteers.

Oklahoma was represented during each fiscal year of the program, but for one. In 1966 and 1967 there were three volunteers each. In 1968 there were four, one each in 1969 and 1970, two in 1972 and one in 1973. □

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## Health Education Measure Clears Initial Legislative Hurdle

A resolution that would require health education be taught at all levels of elementary and secondary education has been approved by a Legislative Council Committee.

OSMA's House of Delegates endorsed quality public health education in 1972. Hayden Donahue, MD, then chairman of the council reported to the Delegates, "One of the great needs in Oklahoma is the inclusion of a quality health curriculum in Oklahoma's Public School System. Current courses in biology, sciences, physical education and personal hygiene are inadequate to give children the proper knowledge of, and appreciation for good health . . . We need a curriculum to train teachers and a curriculum for students on all aspects of health including health economics."

The legislative resolution does not require specific courses nor make health education curriculum completely mandatory. The proposal states "That the State Department of Education with the approval of the State Board of Education establish a definite time allocation for the teaching of health education in Oklahoma public schools K through 12."

Testimony presented to the special legislative committee chaired by Senator Terrill, Lawton, included the results of a survey of 3,328 Oklahoma school children regarding their knowledge of good health practices, sampling covered each grade level and was geographically statewide. In every area, Oklahoma children scored considerably below the national average: High school students were 28 percent lower; ninth graders 32 percent and sixth graders 6 percent. Most significant lack of health knowledge was indicated in the areas of personal and family health, nutrition and safety. Reliability of testing materials and procedures were nationally recognized by education authorities.

OSMA representatives joined with a special Task Force to prepare and present the resolution.

Several legislators have indicated an interest in authoring the proposal including

Senator James Howell, Chairman of the Senate Common Education Committee.

Members of the Joint Legislative Committee approving the measure were:

### SENATE

Al Terrill, Chairman, Lawton, Oklahoma  
Peyton Breckinridge, Tulsa, Oklahoma  
Hershel Crow, Altus, Oklahoma  
Leon Field, Texhoma, Oklahoma  
Norman Lamb, Enid, Oklahoma  
Ernest Martin, Ardmore, Oklahoma  
Robert Murphy, Stillwater, Oklahoma

### HOUSE

Lonnie Abbott, Ada, Oklahoma  
Daniel Draper, Jr., Stillwater, Oklahoma  
Charles Ford, Tulsa, Oklahoma  
Joe Johnson, Heavener, Oklahoma  
Ron Shotts, Moore, Oklahoma

## Drug Abuse Manual and Film Available

A second edition of the OSMA Drug Abuse Treatment Manual has now been published and is available to all interested persons. The second edition contains updated information on drugs and a list of the certified drug abuse treatment and counseling centers in the state.

In addition to the manual, the OSMA has a film specifically designed to teach physicians to handle drug overdose situations. Entitled "What Did You Take?," the film is available to be shown to county medical societies, hospital staff meetings, or other interested groups.

Jim Earls, MD, Chairman of the OSMA Drug Abuse Committee, recently contacted all county society presidents and hospital chiefs of staff urging them to use the film and the manual for drug abuse programs. In addition, the doctor offered the services of the OSMA Drug Abuse Committee to conduct in-depth programs on both the medical and legal aspects of drug abuse.

Arrangements for the film, copies of the manual, or an in-depth program on drug abuse may be made by contacting Ed Kelsay, Associate Executive Director of the state medical association at 601 N. W. Expressway, Oklahoma City, Oklahoma 73118. □

## Oklahoma Allergy Society Formed



First officers to be elected for the Oklahoma Allergy Society are pictured (l to r) Vernon D. Cushing, MD, Oklahoma City, president; Manuel Brown, MD, Tulsa, vice-president; and George L. Winn, MD, Oklahoma City, secretary-treasurer.

In March of this year, allergists of Oklahoma formed the Oklahoma Allergy Society. At the organizational meeting, Vernon D. Cushing, MD, Oklahoma City, was elected as the first president of the group. Other officers to assume official duties are Manuel Brown, MD, Tulsa, vice-president and George L. Winn, MD, Oklahoma City, secretary-treasurer. Plans were made to hold regular meetings on a yearly basis.

Charter members of the group are: Johnny A. Blue, MD, Oklahoma City; George S. Bozalis, MD, Oklahoma City; Manuel Brown, MD, Tulsa; Lyle W. Burroughs, MD, Oklahoma City; Vernon D. Cushing, MD, Oklahoma City; Robert S. Ellis, MD, Oklahoma City; Charles D. Haunschild, MD, Oklahoma City; Leon Horowitz, MD, Tulsa; Vern O. Laing, MD, Tulsa; Fanny Lou Leney, MD, Oklahoma City; Floyd F. Miller, MD, Tulsa; James A. Murray, MD, Tulsa; and George L. Winn, MD, Oklahoma City. □

## Two Oklahoma Physicians Named HEW Consultants

Two Oklahomans have been appointed as part-time consultants to Region VI of HEW. Howard B. Keith, MD, of Shattuck and

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Richard Taliaferro, MD, of Ada were notified in September of their appointments.

The two Oklahoma MDs will be working with utilization review to assist HEW in updating utilization review regulations. They will also be called upon to participate in and conduct regional training programs and workshops in utilization review.

Their appointment was announced by William A. Cherry, MD, HEW's Acting Regional Health Administrator. □



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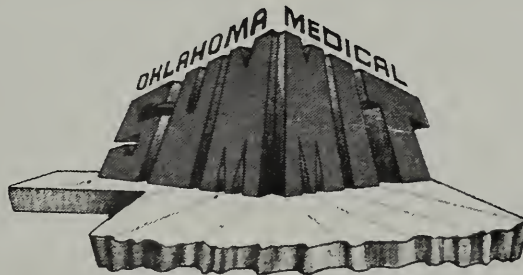
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tact the Fairfax Hospital Board, P.O. Box 531, Fairfax, Oklahoma 73647. Phone 918 642-3291.

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**FOR SALE:** Walnut examining table, instrument table, stool, waste container, sterilizer cabinet and practically new sterilizer. Same examining room equipment in light maple hard wood. One 30 mg x-ray and fluoroscope and table. Profex-ray, 15 mg. Lead lined x-ray film box and cassette storage. Good cassettes in three sizes. Two 14 x 17 viewing lights. Stainless steel developer tank. Film hangers in all sizes and padded treatment table. Contact R. W. Lewis, MD, 1415 E. Third, Sulphur, Oklahoma 73096. Call 405 622-3465.

**FOR SALE:** Surgical instruments, mostly general surgical and gynecology. Contact Clemens M. Hartig, MD, 6465 South Yale Avenue, Tulsa, Oklahoma 74136. Phone 622-4050, office or 742-1444 home. □



## OKLAHOMA MEDICAL SUMMIT

### A Combined Meeting of

The Oklahoma State Medical Association

The Oklahoma City Clinical Society

The Oklahoma Academy of Family Physicians

May 13-15, 1974

**AT THE MYRIAD**

Oklahoma City, Oklahoma

## "Health Job Fair"



Over 100 rural communities are expected to participate in Oklahoma's second Health Job Fair scheduled for October 16th, at 1:00 to 9:00 p.m. at the Myriad Convention Center in Oklahoma City.

Last year's event drew 1,000 students studying for health careers from colleges and vocational technical schools throughout the state, and allowed 67 communities an opportunity to recruit needed health professionals. The overwhelming success of the fair paved the way for this year's event which is honorarily chaired by Governor David Hall and co-sponsored by the University of Oklahoma Health Sciences Center and the Oklahoma Regional Medical Program. Financed by the Regional Medical Program, the event is free to rural communities having populations of 1,500 or more.

Coordination of the Health Job Fair is the responsibility of the Oklahoma Council for Health Careers, a non-profit corporation that has worked in recruitment of students for health professional training for six years. The governing board of the council, composed of representatives from twenty health professional associations, including the Oklahoma State Medical Association and auxiliary, has directed that the council involve itself in efforts to correct the maldistribution of health manpower. In efforts to obtain that goal the council has built a free,

comprehensive placement service for health professionals and coordinated the annual Health Job Fairs. "We want to set up a system that will allow rural communities to recruit for themselves," states Kenneth Hager, Executive Director of the Council. "The Health Job Fair helps communities focus their initiative."

Many of last year's participating communities took the initiative and followed up on contacts made at the fair by offering loans, scholarships, summer jobs, personalized tours and, in the case of Texhoma, a pheasant hunt.

For many rural communities, last year's Health Job Fair proved itself to be highly educational for they learned what other communities were doing to successfully recruit health professionals. Undoubtedly, this year's fair will show the fruits of that experience and it is anticipated that a larger turnout of rural communities will be prepared to expose student health professionals to the opportunities awaiting them in rural practice.

INVOLVEMENT is the theme of this year's Health Careers Committee. We must reach the high school and junior high school students with our message about opportunities in health careers. We must get the medical and paramedical professionals more involved in introducing the students to these careers. We plan to work in organizing the high school clubs and programs. It is vital to the future of medicine that we recruit good people for health careers and that we influence them favorably. They are the future of medicine, let's get them INVOLVED now. — Judie Aronson □

## *PBC-TV For Patients . . . and Physicians?*

"The Killers" — five hour-and-a-half medical documentaries — will be presented over the 237 interconnected Public Broadcasting Service stations across the country each month through March starting November 19. The series is made possible by a grant from the Bristol-Myers Company, a multinational diversified manufacturer and marketer of products for health, personal care and the home, as part of a long-range program of corporate responsibility.

"The Killers" is designed to inform the public about methods of prevention, early detection and treatment of the five medical conditions that accounted for 75.7 percent of deaths — 1½ million — in the United States last year: Heart Disease, Inborn Genetic Defects, Pulmonary Disease, Trauma, and Cancer.

To increase the effectiveness of the series, local PBS stations will use the shows as springboards for community action. Working with local offices of national health organizations, community medical personnel and other interested citizens, many of the local stations are planning programming tied into

the national series, as well as community follow-up activities such as lectures, workshops, demonstrations and informal clinics.

### Medical Advisory Board

Control of editorial content of the series lies solely with WNET/13 Science Program Group, headed by Emmy and Peabody Award winner David Prowitt. Working with the group is an advisory board of twenty-three representatives of the health and medical professions selected by the group.

A synopsis of each program will be presented in the News Section of *The Journal*. In this issue, the first two programs, "Heart Disease: The 20th Century Epidemic," to be presented at 8:30 pm on November 19 and "Inborn Genetic Defects," to follow on December 17, are summarized. The programs will be aired on Channels 13 and 25 in Oklahoma City, and Channel 11 in Tulsa.

Many of our patients will watch these programs, and bring their questions and comments to us. Perhaps we should watch them too.

MRJ



I am a great believer in loyalty: (1) To one's self; (2) to one's wife and family; and, (3) to one's profession. I am also a great believer in loyalty to one's employer.

We are self-employed for the most part, but I greatly believe that

all of our nurses, assistants and other employees should be loyal to us as physicians. My attitude about the quality of loyalty extends to our professional organization as well. I think we can expect loyalty from our OSMA executives and association employees. This is exemplified by the fact that when we have meetings on Sunday, our executives and secretaries work far beyond the call of duty. I think they should be complimented by all of us for their loyalty to the OSMA and to the profession in general.

Your officers have tried to stay abreast of the PSRO problem. The staff and certain of the officers attended an AMA regional meeting in Dallas on October 19th and 20th. This informative program was conducted by William B. Hildebrand, MD, Chairman of the AMA Council on Medical Service. PSRO is on the brink of being activated. It is my opinion that the physicians of Oklahoma must be prepared for all contingencies. If we decide to not participate, it should be a well-informed decision. If we elect to try and manage PSRO, we must be prepared to act at the time a policy decision is made.

The Board of Trustees has instructed the Oklahoma Foundation for Peer Review, Inc., to become more active as an investigative body. Of course, the main problem in evaluating the full impact of PSRO is that the government has not published the regulations. When these regulations are final, they will be the same as law.

I may be the first to balk when I see the regulations, and I may recommend to all of you that we not participate in PSRO. But if

the House of Delegates makes the decision to participate then we must be able to act immediately and intelligently through proper advanced preparation. It was said in Dallas that the insurance companies, Blue Cross-Blue Shield and the welfare departments are willing and able to take on this job if we do not. At this time, I personally do not want to be PSRO'd by any one except a fellow Oklahoma physician.

Just a little food for thought:

There is a need for clarification of certain terms that are being used at the present time, such as the terms "*medical care*" and "*health care*." These vague terms should not be used interchangeably.

The *medical care* team consists of physicians, nurses and all other paramedical personnel involved in direct patient care. The *health care* team takes in many other professions — such as sanitation engineers, environmentalists, slum re-developers, and a whole host of other kinds of workers who are interested in the nation's health, and therefore are called the *health care* team. It is most important to make a distinction between "*medical care*" and "*health care*."

The medical profession must not be held responsible for all facets of health care . . . for example, doctors did not create the general health problems in the slum areas. Physicians must not be held singularly responsible for "*health care*." We do not have unique responsibility and we are not especially expert about some of the problems in which sanitation engineers and environmentalists are involved. Although this is "*health care*," we must primarily address ourselves to taking better care of our patients. Our principal contribution is vested in our particular expertise in the field of "*medical care*."

Sincerely,

*C Riley Strong M.D.*

# Surgical Treatment of Lip Cancer: Recommendations for Therapy In A Rural Population

R. NATHAN GRANTHAM, MD  
W. EDWARD DALTON, MD

*Treatment of 167 patients with squamous cell carcinoma of the lip has been reviewed. When economics and availability of treatment facilities are considered, surgery rather than radiation therapy appears to be a better method of health care delivery for treatment of lip cancer in rural portions of the United States.*

Squamous cell carcinoma of the lip is usually treated with either surgery or radiation therapy. Although great controversy formerly was present over which method was best, both surgeons and radiotherapists now generally agree that either method is both safe and effective when applied by a qualified physician.<sup>1,4</sup> Five-year cure rates of 70-90% are usually reported with either method.<sup>3,5,7</sup>

The purpose of the present study was to review treatment of squamous cell carcinoma of the lip at the Oklahoma University Health Sciences Center (OUHSC) and to consider health care delivery for persons with lip cancer in a rural portion of the United States. Epidemiological data and results of surgical treatment are included to characterize the population undergoing treatment

and to show that results of treatment in general have been similar to those reported by previous authors.

## CLINICAL MATERIAL

All patients treated on an inpatient basis for squamous cell carcinoma of the lip at OUHSC during the 18-year period from 1953 through 1970 were included in this study. The records of 167 patients were examined. All of the patients were Caucasian, three were female, and four had lesions of the upper lip. The records were analyzed for age, sex, race, occupation, history of previous therapy for lip cancer, presence of palpable cervical nodes on admission, treatment at OUHSC (surgery or radiation), pathology report, and follow-up. Follow-up data beyond the immediate postoperative period was available in only 60% of the patients.

## RESULTS

Age distribution of patients treated for lip cancer is shown in Fig 1. Sixty-two percent (105) of the patients were between ages 50 and 69 years with only 16% (26) of patients less than 50 years of age. As Keller<sup>8</sup> has shown, this disease is primarily seen in older patients, an observation with which this study is in agreement.

The occupations of the patients in this study are shown in Fig 2. As expected in an agricultural region, the majority of the patients were engaged in outdoor occupa-

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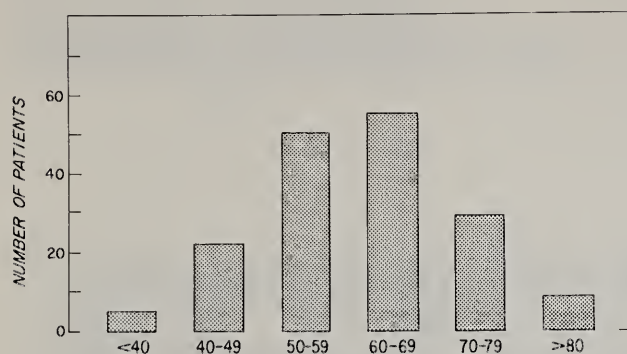


Fig 1 Age distribution of patients treated for carcinoma of the lip.

tions. The Southwest region of the United States, which includes Oklahoma, has been shown to have a high incidence of ultraviolet radiation from sunlight encountered in outdoor occupations.<sup>8</sup>

Thirty percent (52) of the patients in this study had received previous therapy for lip cancer varying from less than one year to more than 20 years prior to the present illness (Fig 3). Sixty-eight percent (35) of this group had received radiation therapy and 32% (17) either surgery or cautery. All of the patients who had received previous radiation therapy underwent surgical excision of their lesions at OUHSC.

Therapy of carcinoma of the lip is summarized in Table 1. Sixty-five percent (107) of the patients underwent simple V-excision of the lip lesion. Thirty percent (50) had larger lesions requiring flap reconstruction after wide excision, and 5% (6) had small lesions entirely removed with vermillionectomy or excisional biopsy. Additional surgical procedures were required in 18 patients because of recurrences, new lesions or inadequate margins of resection. Six patients

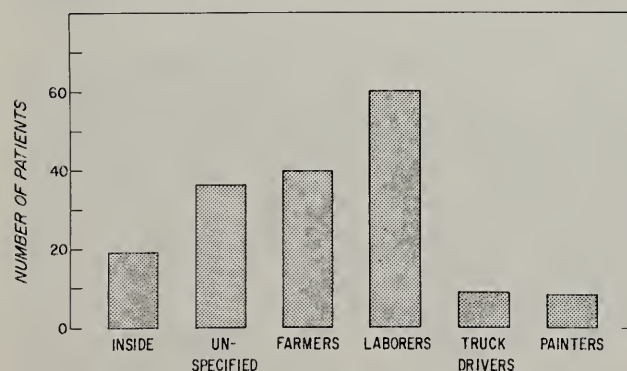


Fig 2 Occupations of patients treated for carcinoma of the lip.

Table I  
Treatment of Patients with Carcinoma of the Lip

Mode of Therapy	No. Patients
V-lip excision	107
Excision with flap reconstruction	50
Radiation therapy	19
Excisional biopsy	3
Vermillionectomy	3

received both surgery and subsequent radiation therapy for palliation of recurrence of tumor in the neck. None of this latter group survived more than one year after treatment.

Five of the 19 patients treated by radiation therapy received this treatment mode as primary therapy for lip cancer (Table 2). Since all the patients in the present review were treated for lip cancer on an inpatient basis, these results of treatment with radiation therapy in no way represent the results of this mode of therapy in patients treated on an outpatient basis. The large majority of the patients in this series treated with radiation therapy had extensive disease involving mandible and neck and were treated only as a palliative measure.

Cases which required additional surgical procedures were considered treatment failures (Table 3). These included 11 patients with inadequate margins of resection, 10 patients with a recurrence of cancer at the site of resection in less than one year, and five patients with what may have been new primary lesions.

Radical neck dissection was performed when palpable cervical adenopathy was present on admission or during the initial one

*R. Nathan Grantham, MD, was a 1970 graduate of the University of Oklahoma College of Medicine where he is presently taking a residency in surgery. Doctor Grantham is a member of the Alpha Omega Alpha.*

*Since his graduation from the Medical College of Virginia, W. Edward Dalton, MD, has been certified by the American Board of Plastic Surgery and the American Board of Surgery. He is affiliated with the American College of Surgeons, the American Society of Plastic and Reconstructive Surgery, the American Burn Association, the Cleft Palate Society and the Southwestern Surgical Congress. Doctor Dalton is currently in private practice in Oklahoma City.*

Table 2  
Radiation Therapy for Carcinoma of the Lip

Total No. Treated	Died of Disease	Died Free of Disease (gastric ulcer, CVA)	Lost to Follow-up
19	6	2	4
<hr/>			
Primary Treatment*			
5	0	2	3
Metastases Treatment			
6	5	0	1

\* Usual dose 5000r to lip

year follow-up period. Twenty-six patients were treated in this manner with six patients having concurrent contralateral supraomohyoid dissection and two patients having staged bilateral neck dissection. Sixty-two percent (16) of these patients had positive nodes and six patients died of complications of lip cancer. Survival of the patients who underwent radical neck dissection is shown in Fig 4. The follow-up period ranged from one to 15 years averaging 4.1 years.

COMMENT

The epidemiology of squamous cell carcinoma of the lip has been carefully defined by Keller.<sup>8</sup> Age and occupational data (Fig 1 and 2) have been presented to indicate that the patients included in this study are typical examples of patients with lip cancer. This group also had other characteristics such as cigarette smoking, Caucasian race, and other

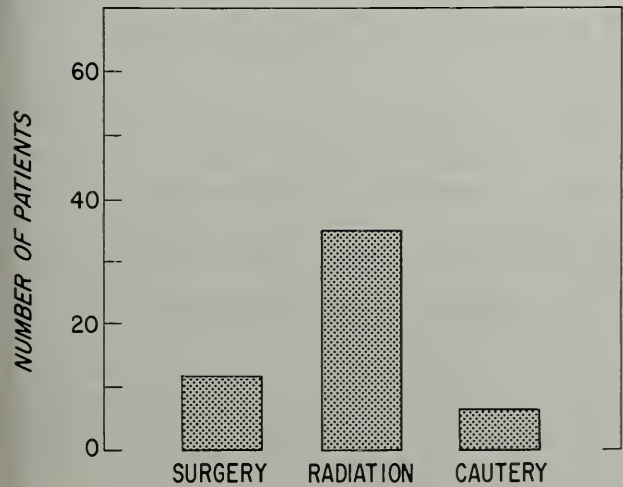


Fig 3 Previous treatment of patients with carcinoma of the lip.

Table 3  
Treatment Failures in Carcinoma of the Lip

Mode of Therapy	No. of Patients
V-lip excision with inadequate margins	6
Excision with flap reconstruction with inadequate margins	5
Recurrences	
after surgery (12 recurrences)	10
after radiation therapy (3 recurrences)	2
Developed second primary lesion	5

skin cancers which Keller has described as being frequently associated with lip cancer.

Longenecker<sup>5</sup> in reviewing the experience of treatment of carcinoma of the lip in 425 patients excluded from the study all patients who had received prior therapy for lip cancer. No figures are available for comparison of the 30% of patients in the present study who had received prior therapy for lip cancer (Fig 3). However, this would appear to be a significant number of patients. Careful analysis of the cases in this study failed to provide any correlation between the length of time since prior therapy, the mode of therapy—surgery, cautery or radiation—and the extent

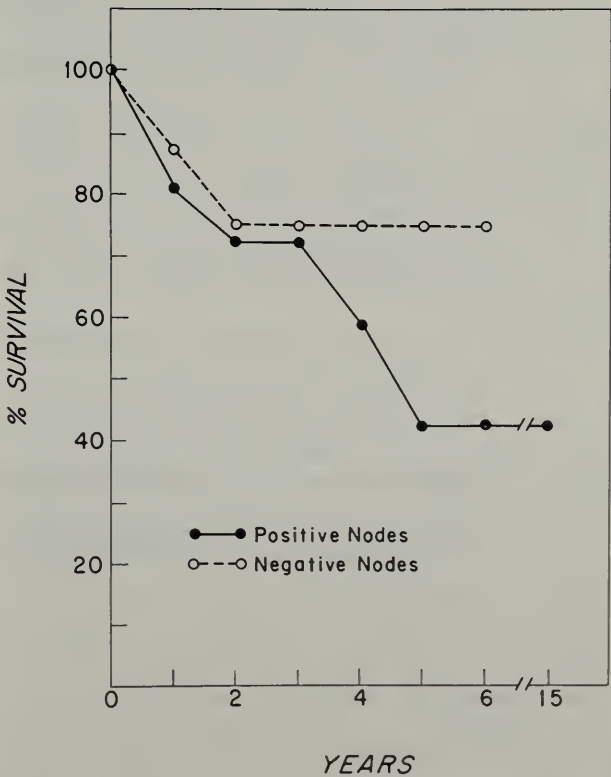


Fig 4 Survival after radical neck dissection for carcinoma of the lip.

Table 4  
Therapeutic Radiologists in Oklahoma  
and Surrounding States\*

Oklahoma	7
Kansas	5
Arkansas	1
Missouri	14
Colorado	9
Texas	28
New Mexico	1

\* American Society of Therapeutic Radiologists, 1973.

of present lesions or the outcome of present therapy. Certainly those lesions regarded as recurrences after prior therapy must be considered treatment failure and when combined with the recurrences and treatment failures after present therapy (Table 3) this number becomes significant. The nine percent incidence of recurrence (Table 3) approximates that reported by Longenecker<sup>5</sup> and by Ashley *et al.*<sup>3</sup> No figures of the incidence of inadequate margins of initial resection are available; however, the widespread availability of frozen sections of resection margins, and the satisfactory use of flap reconstruction of the lip after wide resection, should decrease the incidence of this complication.

Survival of patients undergoing radical neck dissection (Fig 4) in this study is similar to that reported previously.<sup>3,5,7</sup> Sixty-two percent (16) of the patients had pathologic confirmation of malignancy in cervical nodes. This figure compares favorably with previous reports when clinically malignant adenopathy was used as the indication for the procedure and prophylactic operations were not performed.<sup>7,9,10</sup>

Although radiation therapy is recommended as the treatment of choice for lip cancer in some centers<sup>1</sup> recurrences do occur. Lee<sup>4</sup> has stressed the importance of early recognition of these lesions and prompt surgical excision. The incidence of recurrence reported by Ashley<sup>3</sup> is similar for both radiation therapy and surgical excision (23% and 13% respectively). Simple V-excision of recurrent lesions has resulted in cure rates similar to those reported for primary lip cancer.<sup>3</sup>

In treatment of carcinoma of the lip in European countries, or in the heavily populated portions of the United States, little attention has been given to the availability

of treatment facilities since, in those areas, the facilities are easily accessible. However, in the Southwest (Oklahoma and surrounding states) the large majority of the population at risk for lip cancer live in rural areas or small towns which may be many miles from large treatment centers. The decision of whether to use radiation therapy or surgery for treatment of lip cancer then becomes a problem of economics and health care delivery.

The number of therapeutic radiologists in Oklahoma and surrounding states is shown in Table 4. This small number probably represents a low estimate of the actual number of physicians qualified to administer radiation therapy in lip cancer. The recommended dose of radiation therapy for lip cancer is about 5,000r administered over a period of six weeks, five days per week. If a patient lives in a metropolitan area where a therapeutic radiologist and equipment for radiation therapy are available, then this method of therapy is certainly satisfactory, and usually results in no economic strain on the family because of large hospital costs\* or loss of work.

On the other hand, if the patient is a farmer or a laborer in a rural community several hundred miles from a health science center, in order to receive radiation therapy he must live away from his family five days per week for six weeks, in itself a heavy psychic and economic burden aside from the fact that he will be out of work for a minimum of six weeks.

It is for this latter patient that surgery seems to be the preferred treatment since simple V-excision or even flap reconstruction of a larger lesion would require only a few days hospital stay and return to work would usually be possible within seven to ten days. The hospital cost would be about the same as for radiation therapy and the economic loss to the family because of loss of work would be considerably less. The decision as to the choice of therapy for the patient in a metropolitan area would depend on the preference of the physician and the patient.

Since a large number of general surgeons, plastic surgeons, and otorhinolaryngologists are present in the Southwest as compared with the small number of therapeutic radiolo-

\* Estimated cost for radiation therapy as described on an outpatient basis is \$500.

gists, surgical excision is probably the preferred method of health care delivery for patients with lip cancer in this geographic area. □

P.O. Box 26901, Oklahoma City, Oklahoma 73190

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**TOM PARKER MEMORIAL  
LECTURESHIP FUND**

**An annual neurological lectureship has been established at the University of Oklahoma College of Medicine in memory of Tom Parker, MD, popular 41-year-old Oklahoma City neurologist who died of leukemia on June 21, 1973.**

**Doctor Parker was graduated from the OU College of Medicine in 1958. At the time of his death he served as a member of the State Board of Medical Examiners.**

**Tax deductible contributions may be made to the Tom Parker Memorial Lectureship Fund and should be sent to Robert Bird, MD, Dean, OU College of Medicine, P.O. Box 26901, Oklahoma City 73190.**

# Esophageal Function Studies: A Clinical Approach to The Evaluation of Esophageal Disease

RONALD C. ELKINS, MD  
LAZAR J. GREENFIELD, MD

*Objective evaluation of the patient with small hiatal hernia and upper abdominal complaints is difficult. The experience with a battery of esophageal functions on the first 23 patients studied over a six-month period is presented. This allows for assessment of disability and appropriate medical or surgical therapy.*

Objective evaluation of the patient with a small hiatal hernia and upper abdominal complaints often is difficult. Many patients have symptoms suggestive of esophagitis but routine barium swallow fails to demonstrate reflux and conservative management fails to control their symptoms. To evaluate these patients better, esophageal function studies have been developed recently which detect gastroesophageal reflux more accurately and assess the function of the lower esophageal sphincter allowing more accurate diagnosis and rational therapy based on the specific physiological disorder.

During the past six months 23 patients have undergone evaluation of their esophageal disease by a combination of x-ray, esophagoscopy, and a battery of esophageal func-

tion tests at the University of Oklahoma Health Sciences Center. The experience with these patients forms the basis of this report including a detailed presentation of the esophageal function studies.

## RADIOGRAPHIC STUDIES

The presence of a hiatal hernia is best determined by barium swallow examination of the cardia. The frequency of diagnosis appears to vary with the skill and diligence of the radiologist and the criteria he accepts for making the diagnosis. The use of cine techniques has improved the accuracy and sensitivity of radiographic studies but documentation of gastroesophageal reflux remains difficult. However, when reflux is definitely seen during radiography, it should be considered abnormal, since reflux has been confirmed by other techniques in every instance in which it has been seen by radiographic studies.<sup>5</sup>

Acid barium studies are performed to evaluate the dynamic response of the esophagus during simulation of gastroesophageal reflux. The demonstration of increased esophageal tone and spastic non-peristaltic contractions are the most consistent findings in patients with esophageal symptoms.<sup>3</sup> The test identifies those patients whose esophagus is unduly reactive to hydrochloric acid and whose symptoms are likely to be due to reflux of gastric contents into the lower esophagus.

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Esophagitis is a pathological diagnosis which is made by observation of gross ulceration in the esophagus or by biopsy<sup>4</sup>. No other diagnostic test equals esophagoscopy in accuracy, but it must also be recognized that no other test entails as much risk as esophagoscopy.

Endoscopy can be utilized to evaluate the physiological function of the esophagus as well as its pathology; however, the evaluation of reflux by esophagoscopy is open to criticism. The presence of the esophagoscope in the lower esophagus will act as a bolus and cause relaxation of the esophageal sphincter thereby permitting reflux. This is particularly true if esophagoscopy is done under general anesthesia when artificial relaxation of the lower sphincter is present and reflux is likely. The pH reflux test to be described is more reliable for documenting reflux.

Esophagoscopy should be performed on any patient with significant dysphagia and evidence of a stricture on barium swallow. Those patients who have a positive acid clearing study and those patients who fail to respond to conservative management of their symptoms should undergo esophagoscopy prior to operative intervention.

#### ESOPHAGEAL FUNCTION TESTS

These tests have been designed to provide objective evidence of esophageal reflux and differentiate those patients who have atypical symptoms as well as patients who have more than one abnormality such as hiatal hernia combined with cholelithiasis, pancreatitis, peptic ulcer disease, or angina pectoris. These tests also provide an objective basis for the evaluation of therapy.

#### MANOMETRY

Intra-esophageal manometry is performed with a single silastic catheter which has three miniature strain gauges mounted 5 cm apart (Fig 1). The catheter is passed through the nose into the stomach and then pressures are recorded as the catheter is withdrawn at 1 cm intervals until the catheter is entirely within the esophagus.

The lower esophageal sphincter (LES)

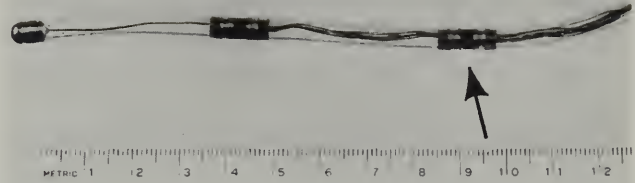


Figure 1. Single silastic catheter with three miniature strain gauges placed 5 cm apart. Catheter is flexible and has an external diameter of 4 mm.

mechanism is identified as the zone of increased mean pressure relative to adjacent gastric pressure and esophageal pressure. Adjacent gastric fundal pressure is arbitrarily considered as zero. The length of the high pressure zone (HPZ) and the amplitude of deflection are evaluated. With the lower strain gauge in the HPZ the patient is asked to swallow in order to evaluate coordination between peristaltic activity in the esophagus.

*A 1962 graduate of the University of Oklahoma College of Medicine. Ronald C. Elkins, MD, has been certified by the American Board of Surgery and the Board of Thoracic Surgery. He is presently Assistant Professor of Surgery at the University of Oklahoma Health Sciences Center. He is a Fellow of the American College of Surgeons, a member of the Association for Academic Surgery, the American Physiological Society, the American Association for the Advancement of Science and the American Heart Association.*

*Since graduating from Baylor University College of Medicine, Lazar J. Greenfield, MD, has been certified by the American Board of Surgery and the American Board of Thoracic Surgery. He is now Professor of the Department of Surgery at the University of Oklahoma Health Sciences Center and Chief of Surgical Services at the Veterans Administration Hospital in Oklahoma City. His medical affiliations include the Society of University Surgeons, the American Surgical Association, the American Association for Thoracic Surgery. He is a Fellow of the American College of Surgeons, the Association for Academic Surgery and the Oklahoma Surgical Association.*

phagus and relaxation of the LES. With the catheter in the esophagus several swallows are recorded to evaluate the coordination of peristalsis and the presence of spastic contractions.

Interpretation of the results of manometry allows one to make specific statements about the competency of the cardia and about the presence of neuromuscular coordination. Skinner and Booth have reported a mean LES of  $7.3 \pm 2.3$  mmHg. in patients who did not have reflux but did have a hiatal hernia and/or upper abdominal complaints. This was compared to an average pressure of  $3.7 \pm 2.1$  mmHg. in patients with similar complaints who had reflux. The difference was significant ( $p < .001$ ), but the overlap was such that the manometric results could not be considered diagnostic in individual patients.<sup>6</sup>

Manometric studies are valuable in screening for abnormalities of the lower esophageal sphincter and in excluding other conditions such as achalasia, scleroderma, or esophageal spasm which may coexist with reflux esophagitis and mimics its symptoms.

#### PH REFLUX TEST

Utilizing a small levin tube, a bolus of 300 cc 0.1 N HCl is introduced into the stomach and the levin tube is removed. A long Beckman pH probe (#39042) is then passed through the nostril and positioned 5 cm above the previously measured HPZ (Fig 2). With the pH probe fixed in this position the

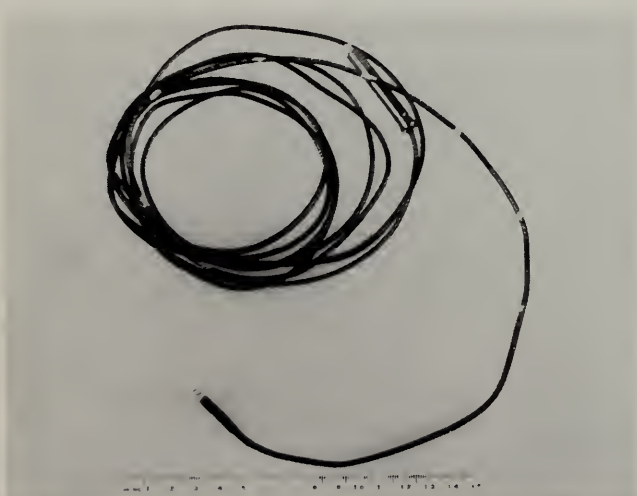


Figure 2. Glass tip, Beckman pH probe which is 150 cm long and 3 mm in diameter. The probe is flexible and easily swallowed by patients.

patient is asked to breathe deeply and perform Valsalva and Muller maneuvers (forced inspiration against a closed glottis) while the esophageal pH is being recorded continuously. These maneuvers are then repeated with the patient supine, lying on his right side, lying on his left side and with the foot of the bed elevated 20°. The necessary maneuvers can be completed in 10 minutes. A drop in esophageal pH to less than 4.0 is considered indicative of reflux. After each episode of reflux the patient is asked to swallow and if the pH does not promptly rise to above 5.0 he is given a small amount of water to drink to clear the refluxed acid.

The severity of reflux can be graded from 0 to 3+ depending on the frequency and persistence of pH drops in the esophagus. A 1+ reflux is scored when one or two transient drops in pH occur during the entire sequence. More frequent falls in pH are graded 2+ and when the esophageal pH remains low throughout most of the study from multiple falls in pH, 3+ reflux is recorded.

In a group of 91 normal volunteers studied by Booth, *et al*,<sup>6</sup> 63 had no drop in pH during the test and 26 had one or two transient drops in pH graded 1+ reflux but were considered normal. Only two subjects had a more frequent or prolonged drop in pH regarded as abnormal reflux. This false positive rate of 2.2% is much more satisfactory than results obtained by any other means.

Because the pH reflux test actually measures reflux directly and under standard conditions, it provides sharp distinction between normal and abnormal with a low false positive rate. Therefore the pH reflux test is diagnostic of abnormal gastroesophageal reflux and indicates further investigations and treatment when an abnormal result is obtained.

#### ACID CLEARING TEST

With the pH probe positioned 5 cm above the LES a small levin tube is positioned 10 cm above the pH probe. Fifteen cc of 0.1 N HCl is instilled into the esophagus. The patient is asked to swallow every 30 seconds and the number of swallows required to restore esophageal pH to 5.0 is recorded. With acid in the esophagus, a rise in pH generally occurs only with peristalsis.

The ability of the esophagus to empty itself of acid peptic material will determine the duration of contact between the refluxed material and the esophageal mucosa. This in turn may influence the development of esophagitis. Booth, *et al*,<sup>2</sup> found that the ability of the esophagus to clear acid solution could be quantitated and they evaluated the significance of an abnormal test. In 61 patients in whom esophagoscopy findings could be correlated with acid clearing, 70% of those with grossly visible esophagitis had abnormal clearing compared to 36% with abnormal clearing in the group without esophagitis. The presence of abnormal acid clearing in the pH reflux tests strongly suggests that esophagitis may be present and esophagoscopy should be undertaken as a guide to appropriate treatment.

#### ACID PERFUSION TEST

The test determines the sensitivity of the patient's esophagus to acid perfusion. When symptoms are reproduced and reflux is observed these symptoms can be attributed to gastroesophageal reflux.

A small levin tube is positioned in the mid-esophagus and perfusion is begun with 0.9% saline at 6 ml/min. Following 10 minutes of perfusion the perfusate is switched to 0.1 N HCl at the same rate of perfusion without the patient's knowledge. The acid perfusion is continued for 20 minutes and then perfusion is again switched to saline. If the patient complains spontaneously of symptoms during acid perfusion and not during saline perfusion the test is considered positive.

The acid perfusion test has been evaluated by several authors<sup>1,3,7</sup> and they conclude that the acid perfusion test will be positive in most patients with symptomatic esophageal reflux. However an acid sensitive esophagus is common in control subjects and because of the 30% incidence of false positive results in symptomatic patients without reflux, the acid perfusion test does not offer a reliable method to diagnose gastroesophageal reflux. A positive acid perfusion test demonstrates only that the esophagus is sensitive to acid. It does not demonstrate gastroesophageal reflux.

#### CLINICAL STUDIES

All patients evaluated had symptoms of

gastroesophageal reflux or dysphagia. Sixteen of the patients had evidence of a small hiatus hernia; however, in only four patients was reflux demonstrated by the barium swallow. The pH reflux test was performed in all patients and in five of them was rated either no reflux or 1+ reflux which is considered normal. Two patients had 2+ reflux and 16 patients had 3+ reflux. Motility was evaluated in all patients and in three of them with complaints of substernal burning pain and dysphagia a diagnosis of other than typical reflux esophagitis was suggested by the study (Case 1 and 2).

The acid clearing test was done in 17 patients and was positive in 15 of them. Subsequent esophagoscopy revealed significant esophagitis in 13 of the 15 patients.

The acid perfusion test was not routinely performed in this group of patients.

Several representative case histories are presented to demonstrate the diagnostic capabilities of esophageal function tests.

1) M.C., a 30-year-old white woman, presented with a two year history of progressive dysphagia and mild substernal burning pain. Barium swallow revealed a benign stricture at the cardia. Esophagoscopy showed no evidence of stricture but there was mild esophagitis in the lower four centimeters of the esophagus. Esophageal function studies showed increased motility with prolonged peristaltic waves of increased amplitude and there were tertiary contractions. The LES was five-seven centimeters long with an amplitude of 10 mmHg. There was no evidence of relaxation of the LES with peristalsis. A diagnosis of achalasia was made and the patient underwent a Heller myotomy and Belsey hiatus herniorrhaphy with complete relief of symptoms.

2) D.O., a 35-year-old white woman, presented with progressive dysphagia for two years. Her dysphagia had been associated with almost constant substernal burning pain. Barium swallow revealed no hiatus hernia and no evidence of reflux but there was uncoordinated peristalsis with tertiary contractions. Esophageal function tests showed a lower esophageal HPZ of 12-14 mmHg., three centimeters in length. There was no evidence of progressive peristalsis suggesting the presence of a severe motility disturbance. pH reflux studies revealed 3+

gastroesophageal reflux and acid clearing was markedly positive. Esophagoscopy showed grade II esophagitis. Because of the severe motility disturbance, intensive medical management of her esophagitis was carried out while she underwent an investigation for possible collagen vascular disease. Repeat motility studies confirmed the diagnosis of achalasia and she underwent a modified Heller myotomy and Belsey Mark IV hiatus herniorrhaphy for prevention of reflux. Follow-up studies are planned at six weeks to evaluate her postoperative result.

3) M.D., a 47-year white woman, presented with dysphagia and burning epigastric pain. An upper GI series revealed a hiatal hernia with gastroesophageal reflux. An acid barium study was positive with evidence of aperistalsis. Esophageal function studies showed 2+ esophageal reflux, normal motility, and no lower esophageal high pressure zone. A transabdominal Hill-type hiatus herniorrhaphy was performed and six weeks following repair the patient's symptoms were markedly improved. Esophageal studies were repeated and showed a LES pressure of 10 mmHg. and that the HPZ was three centimeters long. The esophageal motility was normal but on pH reflux testing 1+ reflux was demonstrated. Acid clearing was not performed. The patient is symptomatically improved and esophageal function studies objectively confirm the adequacy of her repair.

4) E. F., a 43-year-old white woman with a history of hiatus hernia and 2+ esophagitis underwent unsuccessful Belsey repair in 1970. Because of recurrent symptoms and demonstrations of reflux by barium swallow the patient was reoperated in February, 1972. The patient did well postoperatively until September of 1972 when she again had symptoms of esophagitis. An upper GI series showed the postoperative changes without reflux or recurrence of the hernia. Esophagoscopy was normal. Esophageal function studies showed a lower esophageal HPZ of 5-7 mmHg., 2.5 cm in length. Esophageal motility was normal. pH reflux testing revealed reflux on two occasions, one supine with a Muller maneuver and once in the head down position with

abdominal pressure. The acid clearing test was normal. Because of the lack of objective evidence of significant reflux or esophagitis the patient has been treated conservatively with stabilization of her symptoms to occasional episodes of heartburn.

#### COMMENTS

Esophageal function studies provide a means of objective evaluation of patients suspected of having esophageal disease and allow the surgeon to plan and evaluate therapy based on physiological measurements. Since these studies became available in this center, 23 consecutive patients with symptoms of esophageal disease have been evaluated. In this group of patients, three of them were demonstrated to have achalasia (including cases 1 and 2), and these patients underwent appropriate surgical treatment of their disease. In both of these patients, an anti-reflux operation was added to correct symptomatic esophageal reflux in one and to avoid this possibility in the second patient.

Objective evaluation of the operative results was obtained in four patients and in two patients, grade I esophageal reflux was demonstrated supporting the subjective improvement of these patients. All patients who undergo operative correction of esophageal reflux will be studied during their postoperative period to assess the results objectively.

This report summarizes our early experience with esophageal function studies and demonstrates the clinical usefulness of these studies in a group of patients usually characterized by an unpredictable response to medical or surgical management. □

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## News From The Oklahoma State Department of Health

### Diagnostic Specificity of Widal's Reaction

Widal's reaction measures agglutinating antibodies to the O and H antigens of salmonella organisms. The serologic diagnosis of typhoid fever has traditionally been made by either a fourfold rise in O antigen titer, or a titer to O antigen greater than 1:50 on a single specimen obtained in the first three weeks of illness. The H antigen titer is of little value as a specific diagnostic test since it is often elevated as a nonspecific response to many kinds of infection.

Reynolds, *et al.*<sup>1</sup> recently reported that the O antigen titer may be as nonspecific as the H antigen titer. A specific case of culture-con-

firmed *Salmonella typhi-murium* infection in a two-year-old child was presented where a diagnostic rise in O antigen titer (Widal's reaction) was observed.

The two-year-old white girl was hospitalized with a ten-day history of fever (101° F) cough, malaise, and intermittent diarrhea which was occasionally streaked with blood. Febrile agglutinations revealed an O antigen titer of 1:80 and a negative H antigen titer. A Widal's test five days later revealed an O antigen titer of 1:320; the H antigen titer was negative. A diagnosis of typhoid fever was made when a salmonella organism was grown from the stool. However, repeated sero-typing showed the organism to be not *S. typhi* but *S. typhi-murium*.

Salmonellae are divided into distinct serologic groups on the basis of O (or somatic) antigens. All group D organisms, one of which is *S. typhi*, possess O antigen 9. Fifty-nine D serotypes share O antigen 12. Infection due to any serotype in this group can produce antibodies that can react with the the O antigen used in Widal's reaction. The diagnosis of typhoid fever must therefore be based on bacteriologic culture. □

<sup>1</sup>JAMA, Dec. 21, 1970, Vol. 214; No. 12.

### COMMUNICABLE DISEASES IN OKLAHOMA FOR SEPTEMBER, 1973

Disease	September 1973	September 1972	August 1973	1973	1972
Amebiasis	1	3	5	26	23
Brucellosis	—	1	1	4	6
Chickenpox	10	1	9	1312	151
Encephalitis, infect.	7	1	26	96	12
Gonorrhea	1206	1018	837	8230	7755
Hepatitis, A, B, Unspec.	107	79	51	837	668
Leptospirosis	—	—	—	—	1
Malaria	—	1	—	2	6
Meningococcal infections	3	—	3	31	6
Meningitis, aseptic	16	15	37	98	51
Mumps	13	1	20	445	159
Rabies in animals	8	13	4	145	251
Rheumatic fever	2	2	2	14	26
Rocky Mt. spotted fever	4	3	6	72	35
Rubella	1	3	2	180	37
Rubella, congenital syn.	—	—	—	—	—
Rubeola	2	—	2	55	10
Salmonellosis	26	21	42	201	111
Shigellosis	13	20	10	162	115
Syphilis, Infectious	19	8	13	135	82
Tetanus	1	—	—	4	1
Tuberculosis, new active	33	29	27	212	216
Tularemia	—	2	1	19	10
Typhoid fever	—	1	—	2	3
Whooping cough	1	4	2	21	30

## Acupuncture To Lead Off Oklahoma Medical Summit

A controversial subject, acupuncture, will be only one of many topics presented during Oklahoma Medical Summit next May 13th-15th. This combined annual meeting of the Oklahoma Academy of Family Physicians, Oklahoma City Clinical Society, and Oklahoma State Medical Association is expected to attract well over 2,000 physicians, guests and allied medical professionals.

Arnold Nelson, MD, Chairman of the Medical Summit Program Committee has announced that Yiu Wing Choi, MD, Pasadena, California will speak on the topic "Modern Acupuncture and the Western Medicine." Doctor Choi is a 1965 graduate of the Medical School of Peking, People's Republic of China. He is currently a research scholar at the University of Southern California Medical Center and USC School of Dentistry.

Doctor Choi is a recognized consultant on acupuncture and a charter member of the Acupuncture Research Institute in Los Angeles. He recently authored a manual on the professional use of these "new" tools.

Another recognized expert on acupuncture, Richard Kroening, MD, Studio City, California will speak on "Acupuncture in Perspective with Emphasis on Rheumatic Diseases and Complications of Acupuncture." The doctor is an internist and rheumatologist.

The special meeting on acupuncture will start at 9:00 a.m. on Monday morning, May 13th, the opening day of Oklahoma Medical Summit.

Other speakers to be heard during the three-day meeting include Beverly T. Mead, MD, Omaha, Nebraska. Doctor Mead is a noted psychiatrist and author of numerous papers on psychiatry. In addition to his academic excellence, Doctor Mead is known to be an outstanding speaker.

Another first for Oklahoma Medical Summit will be the appearance of the Presidents of both the American Medical Association and the American Academy of Family Physi-

cians. Russell B. Roth, MD, AMA President and James L. Price, MD, AAFP President, will be luncheon speakers during the meeting.

Special seminars on cancer, cardiology, OB-GYN, neurological surgery, vertigo, endocrinology, and nephrology will be conducted during the three days. □

## Photo Show Announced For Oklahoma Medical Summit

A photo contest and exhibition open to all Oklahoma physicians and their spouses will be held during Oklahoma Medical Summit, May 13th through 15th, 1974.

Photographic entries may be either black and white or color prints with a minimum size of 5 x 7 inches up to a maximum of 16 x 20 inches. The photos may be of any subject matter, *ie*, portrait, scenic, general interest, scientific, etc.

Kent Braden, MD, Chairman of Oklahoma Medical Summit, announced the photo contest and exhibit. Plans for the actual contest have not been finalized, but it is anticipated that there will be at least three awards each in the two categories of black and white and color photography.

A similar photo exhibit was held during the May, 1973, meeting of the Oklahoma State Medical Association. At that time nearly 30 physician-photographers submitted entries.

Oklahoma Medical Summit is a combined meeting of the Oklahoma Academy of Family Physicians, the Oklahoma City Clinical Society and the Oklahoma State Medical Association. In addition, some 20 allied health professional organizations will meet with the three major groups. Scheduled for Oklahoma City's Myriad Convention Center, Oklahoma Medical Summit is expected to be the largest medical meeting ever held in the state. □

## "Killer—Inborn Genetic Defects"

An important TV program to be shown on PBC is "Inborn Genetic Defects" (see editorial, page 449).

The statistics cannot convey the heart-break: approximately seven percent of all Americans suffer from a genetic defect of some kind; millions more carry genes that cause these defects; an estimated 25 percent of all hospital admissions are related to a genetic defect.

Although genetic defects can be as minor as baldness or slight vision problems, they can be—and often are—so serious as to pose ethical and moral questions as well as health questions.

Should screenings for a disease in a fetus be mandatory? If so, must the mother opt for abortion? Do you tell a pregnant woman and her husband they are carriers of sickle cell anemia and there is a one in four chance their child will have this serious disease, even though nothing can yet be done about it?

Many genetic diseases can be called "ethnic." For example, sickle cell anemia, originally an immunity factor against malaria, is a disease that primarily afflicts blacks whose origins lie in Africa. Cooley's anemia, or thalassemia, strikes persons of Mediterranean descent, with incidence highest among Greek and Italian Americans in the U.S. Tay Sachs disease is a killer of Jewish children of Eastern European ancestry, whereas cystic fibrosis attacks persons whose ancestors came from western European countries. In fact, virtually everyone is a potential carrier of from five to eight diseases and predisposition has been cited as important in a number of diseases, such as diabetes, cancer, heart disease and mental disorders.

The moral and ethical problems cannot be left in the hands of scientists alone. The role the individual and the community can play in regulating and improving methods of screening and treatment of genetic disorders is considered in the Inborn Genetic Defects program in "The Killers" series.

Medical Advisory Board—Inborn Genetic

Defects: Doctor Leon Rosenberg (chairman, department of human genetics), Yale University School of Medicine; Mr. Joseph Mori, National Foundation March of Dimes; Doctor Park Gerald (professor of pediatrics), Harvard Medical School; Doctor Alexander Bearn (chairman), Cornell University Medical College Department of Medicine; Doctor Robert F. Murray, Jr. (chief-medical genetics unit), Howard University College of Medicine.

Filmed for this show: Mrs. Woody Guthrie; Doctor Arno Motulsky in Seattle, Washington; Doctor Raphael Wilson in Houston, Texas; Doctor Robert Good, New York Memorial Hospital; Anthony Cerami, Rockefeller University; Doctor Michael Kaback, Harbor General Hospital, Los Angeles, California; "Baby David," a child with combined immune deficiency who is confined to a germ-free isolator (plastic bubble) in Houston, Texas; Beatrice Mintz, Cancer Institute, Philadelphia, Pa., who has created mice with four or more biological parents; Joshua Lederberg, Nobel Laureate prize winner, Stanford University, Palo Alto, California. □

## PSRO Conference Held in Dallas



Coffee breaks during the PSRO Conference sponsored by the AMA engendered numerous animated conversations. Hillard E. Denyer, MD, (left), Chairman of the OSMA's Foundation for Peer Review is shown discussing PSRO with David Bickham, (center) Associate Director of the medical association and Kenneth Schneider, MD, with the Community Health Services Division of Region VI of the Department of Health Education and Welfare. A PSRO Seminar was conducted in Dallas October 19th and 20th to familiarize medical association officers and staff with the latest developments in the implementation of the controversial Professional Standards Review Organizations law. □

## Rubella In Oklahoma Striking Older Group

Rubella in Oklahoma is on the increase, but it is not occurring in the age groups routinely immunized against this disease. According to Stanley W. Ferguson, PhD, State Epidemiologist, rubella outbreaks in 1973 are occurring in state colleges and universities among 18 to 21-year old people.

Doctor Ferguson noted that there are probably several reasons behind this phenomena. He pointed out that rubella is not a rare disease in adolescents, and that the State Health Department and other agencies charged with collecting information on such diseases is now more sensitive to reports of rubella since it is not preventable by immunization.

The doctor went on to state, "susceptibility to rubella is probably more common among adolescents now than it was three years ago since the prime disseminators of rubella virus (small children) are 80-90 percent immune by

virtue of immunization. This is a temporary phenomena and should cease to exist at the time our oldest immunized children in 1970 (12 years old) begin moving into the adolescent (late teen) years."

He went on to predict that it is entirely possible that there will continue to be small outbreaks of rubella in adolescents for several years. However, he stated that rubella is under control, despite the appearance of the reporting figures.

Early in 1973 rubella outbreaks were reported at St. Gregory's Junior College in Shawnee, Oklahoma City University, Oklahoma State University and the University of Oklahoma. It was generally noted that most of the cases developed among dormitory residents at the universities. Outbreaks of rubella among college students were also reported in Virginia, North Carolina, Mississippi, Tennessee and Colorado.

National rubella reporting began in 1966. Rubella vaccine was first licensed for use in 1969. Oklahoma's "Rub Out Rubella" campaign that resulted in the immunization of thousands of Oklahoma children was conducted in 1970. □

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## Nominees Announced For Medical Examiner Board

Six physician names will be submitted to Governor David Hall to fill two expired terms on the Oklahoma Board of Medical Examiners. The six physicians were nominated by the OSMA's Board of Trustees when it met on Sunday, October 28th.

Three physicians were nominated to fill the seat left vacant by the untimely death of Tom Parker, MD, of Oklahoma City. The three nominees to be submitted to the Governor are Kent Braden, MD, Ken Whittington, MD, and Perry Lambird, MD, all of Oklahoma City.

Three additional nominees were named to fill the expired term of current board member William A. Matthey, MD, of Lawton. Doctor Matthey's term expired on July 1st, 1972. However, he has remained on the board and active until the Governor named a new seven-year member.

Doctor Matthey was renominated to serve on the board along with Charles L. Tefer-tiller, MD, Altus and David Fried, MD, Altus.

The three nominees for each of the two terms will be submitted to the Governor for his consideration.

At the last meeting of the Board of Medical Examiners Donald L. Brawner, MD, Tulsa, was elected President of the board. Doctor William Matthey is currently serving as Vice-President of the board, and Ed L. Young, MD, El Reno, is the Secretary-Treasurer.

Doctor Brawner's term on the Board expires on July 1st, 1975. Doctor Young's term expires on July 1st, 1976. Other Board members include Roger Reid, MD, Ardmore, whose term expires in 1977; Francis R. First, Jr., MD, Checotah, whose term expires in 1974. The newest member to the board is Frank Adelman, MD, an Enid psychiatrist. Doctor Adelman's term expires on July 1st, 1980.

At the present time there are only six members on the seven member board. The late Doctor Tom Parker's term was to expire on July 1st, 1978. □

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## Louisiana Uses Television To Tell Medicine's Story

A 27-minute television program is being used in Louisiana to tell medicine's story to the public. Entitled "Medical Care and the Private Citizen" the program is being sponsored by the Louisiana Medical Political Action Committee, known as LAMPAC.

Production of the first television program in the expected series was made possible by a handful of generous contributions to LAMPAC's Educational Fund. Most political action committees maintain two funds, one for candidate support and one for educational activities.

The first television program in the series will be on Professional Standards Review Organizations. Preview copies of the program will be made available to medical societies throughout the state of Louisiana.

In its "LAMPAC Report" the Louisiana committee points out, "While professional corporations cannot contribute to LAMPAC's candidate support fund, it is legal for corporations to contribute to the educational fund." The newsletter then goes on to state that educational dollars will be used to support TV programs and other political educational activities, but not for candidate support. □

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## Medicare Prevailing Charge Information May Be Public

Unless the Health Education and Welfare Department adopts a new rule, it may be that Medicare prevailing charge information will be open to the public. The new policy became known when HEW said it would not appeal a United States District Court judge's decision that the secrecy of Part B charge standards is in violation of the freedom of information law.

Judge William Jones, Washington, D.C. ordered Blue Shield to release Part B information for Maryland, Virginia and the District of Columbia to a medical writer who had been seeking full disclosure of Medicare operations.

The Social Security Administration had refused since the beginning of Medicare to reveal the prevailing charge information and the so-called "screens" that are applied to individual physician charges in order to determine whether or not they can be considered "reasonable."

It has been known that the screens vary widely from state to state, and even within some states. SSA was concerned that the exposure of the actual screens would create a demand for higher screens in some parts of the country. Judge Jones recognized this possibility is his decision, but stated that the health industry price controls would hold down any major changes. □

## Cancer Information By Telephone Available Soon

A joint project of the Southern Medical Association and Houston's M. D. Anderson Hospital in cooperation with the Texas State Department of Health may soon make the latest in cancer information available to Oklahoma's physicians.

The three organizations are cooperating to expand the telephone communication and consultation service for cancer control. This is a system which allows a physician to make a toll free telephone call to an information

## Emergency Medical Care Discussed



OSMA President C. Riley Strong, MD, (left) and Ken Hager, (center) Executive Director of the Oklahoma Health Careers Council, discuss emergency medical care with John S. Farquahar, MD, Fort Wayne, Indiana. The conversation took place during the Health Career Council's Oklahoma Health Job Fair held October 16th in the Myriad Convention Center in Oklahoma City. Sixty-three communities participated in the fair to tell prospective health care employees about their areas. Over 1,000 students attended the fair this year. □

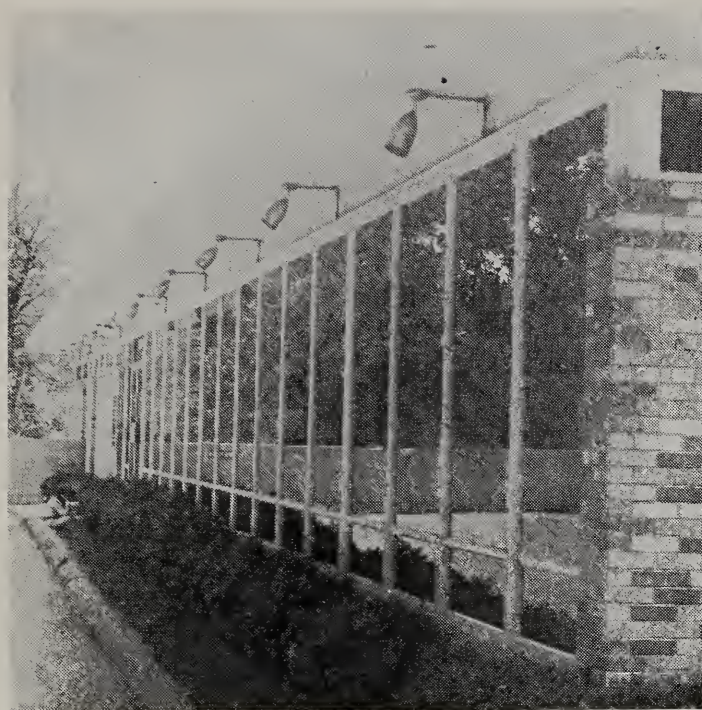
bank located in Houston and then to ask for information on a given subject.

The data bank contains tape recorded messages on two hundred subjects. Each tape is carefully edited to be as precise as possible and lasts only six to eight minutes. It cites up to three references and the author of the information is identified.

Referred to as a Dial Access System, the program will be operational sometime after the first of November. The Southern Medical Association, through its journal and through direct mailings will notify physicians in a 17-state area about the availability of the system and will give an index of the 200 tapes available.

The system has actually been in operation for three years in Texas and Louisiana. Its expansion into the 17-state area covered by the Southern Medical Association is being made possible through the leasing of five WATS interswitchable lines.

Even though operational in early November, the system's first public exposure was during the Southern Medical Association's 67th Annual Meeting in San Antonio, Texas, November 11th through 14th. Open telephone lines were installed from the San Antonio Convention Center to the M. D. Anderson Hospital and the Telephone Consultation and Education in Cancer System. □



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## DEATHS

MARVIN B. GLISMANN, MD  
1893-1973

Marvin B. Glismann, MD, longtime Oklahoma City family physician, died October 12th, 1973. Doctor Glismann was a native of Syracuse, New York and received his medical degree from State University of New York Upstate Medical Center in 1918. He moved to Okmulgee in 1922 where he practiced many years before moving to Oklahoma City.

Doctor Glismann served 12 years as a Delegate to the American Academy of Family Physicians from which he recently received his Fellowship in absentia at the organization's convocation in Denver.

He was awarded an OSMA Life Membership last year in recognition of his service to humanity and the medical profession.

JOHN L. GLOMSET, MD  
1901-1973

John L. Glomset, MD, Oklahoma City physician and father of John L. Glomset, Jr., MD, also an Oklahoma City physician, died October 15th, 1973. A native of Carbury, North

Dakota, he was a graduate of Washington University School of Medicine. He began his Oklahoma City practice 40 years ago. His medical affiliations included the American Academy of General Practitioners and Surgeons.

EDWARD HALSELL FITE, MD  
1898-1973

Retired, Muskogee, urologist, Edward Halsell Fite, MD, died October 17th, 1973. Born in Muskogee, Indian Territory, Doctor Fite was graduated from the University of Virginia Department of Medicine in 1924. Following his residency training in Boston, Doctor Fite established his practice in Muskogee.

Active in medical and civic organizations throughout his career, he was a Past-President of the Oklahoma Urological Society and the South Central Section of the American Urological Association. He was a member of the International College of Surgeons, the American Urological Association and the Southwestern Surgical Congress. Doctor Fite was a Life Member of the OSMA. □

## Fellow Status Given Seventeen Oklahomans

Fellowship in the American College of Surgeons was awarded to seventeen Oklahoma physicians in mid-October during the college's annual five-day clinical congress.

Oklahoma's seventeen were part of an anticipated 1,675 surgeons to be inducted as fellows of the college in a cap and gown ceremony. Fellowship, a degree entitling the recipient to the designation "FACS" following the doctor's name, is awarded to those surgeons who fulfill comprehensive requirements of acceptable medical education and advanced training as specialists in one of the branches of surgery, and to give evidence of good moral character in ethical practice.

The new fellows are: Gordon H. Deen, MD,

Ada; Kenneth R. Peters, MD, Bartlesville; William G. Blanchard, MD, McAlester; W. Edward Dalton, MD; Ronald C. Elkins, MD; James D. Funnell, MD; William D. Hawley, MD; Lewis D. Lowry, MD; H. Craig Pitts, MD; Edward A. Shadid, MD; and Charles J. Wine, MD, all of Oklahoma City.

Also, Peter Sarfatis, MD, Pryor; Jack T. Dancer, MD, Shattuck; Taylor D. Wagner, MD, Stillwater; Stone M. Hallquist, MD; James R. Leach, MD; and James B. Lockhart, Jr., MD, all of Tulsa.

Founded in 1913, the American College of Surgeons is a voluntary scientific and educational association of surgeons, numbering 35,000 in approximately 100 countries. □

## Insurance Industry's Case History Bureau Under Attack

A vast medical data gathering system maintained by the insurance industry is coming under critical attack from members of Congress and Ralph Nader's Health Research group.

The most recent attack on the Medical Information Bureau, known as MIB, came from Senator Ted Kennedy when he introduced an amendment to the Fair Credit Reporting Act currently pending before the United States Senate. The bill itself deals with the right of the individual to see his credit records. Kennedy's amendment would place restrictions on the transfer of medical information and appears to be aimed at the many grievances surrounding MIB.

Doctor Sidney Wolfe, Director of Ralph Nader's Health Research Group, charged that MIB collects information on nearly 80,000 patients a day and in so doing violates the principle of confidentiality of a physician's records.

For many years the insurance industry wouldn't even talk about the existence of MIB, a non-profit computer repository located in Greenwich, Connecticut. Complaints and criticism resulting from persons being refused insurance finally forced the industry to publicly discuss MIB.

The computerized data bank is supported by 760 insurance companies and has information on the medical problems and personal habits of nearly 13,000,000 persons according to Doctor Sidney Wolfe. One reoccurring criticism was that once the information got into MIB's computer, it was almost impossible to erase it even when it was completely erroneous.

Kennedy's addition to the Fair Credit Reporting Act would require that anytime an applicant for health insurance was denied insurance coverage they would be entitled to see all of the data relevant to such a denial. This would include the information furnished by MIB to the company. Another part of his amendment would allow insurance companies to forward medical records or medical information to third parties only when authorized to do so by the applicant.

During a recent Senate investigation hear-

ing of the health insurance industry, UAW President Leonard Woodstock pointed out that MIB, and several other similar organizations, were constantly swapping information with their member insurance companies regarding the morals, marital status, ethnic background, credit rating, social standing, traffic violations and other habits besides health status on individual applicants.

The existence of MIB was defended by its director Joseph C. Wilberding. He told the Senate hearings that the information swapping is necessary because some insurance applicants are not completely truthful whenever they are asked about previous surgeries, current illnesses, or other medical or medically related difficulties.

The primary criticism of the information gathering system was that there was no check on the accuracy of the medical or personal information contained in it. Doctor Wolfe said, "If by doctor error or oversight or if a condition no longer exists, incorrect information can create barriers to getting insurance from any of the 760 MIB-affiliated companies." □

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## "Heart Disease: The 20th Century Epidemic"

An important TV program to be shown on PBC is "Heart Disease: The 20th Century Epidemic" (see editorial, page 449).

Each year one million Americans are stricken for the first time with heart attacks. Nearly half of them die. While heart disease is thought of as a killer of the over-40 group, its lethal effects are felt by all ages: infants with congenital heart malformation; adolescents and young adults with rheumatic heart disease; the middle-aged with angina or a full-fledged coronary; the aged with a "worn-out" heart, often after years of mistreatment. Researchers have identified many pre-conditions of heart disease, including hypertension, fat-rich diets, obesity, lack of exercise, smoking, or a pre-existing genetic problem, but Americans are not yet committed to the concept of prevention vs. cure.

A dramatic indication of this lack of commitment is the rise in the incidence of heart attacks, especially among men in their early 20's and 30's, who suffer "sudden death syndrome" — fatal heart failure without warning — and among women. In a study done 20 years ago by Doctor David Spain of Brookdale Medical Center, he found that men under 51 were 12 times more vulnerable to heart attacks than women in the same age bracket. By 1971 that ratio narrowed to four to one.

While progress is being made in surgical techniques, chemotherapy and prosthetic devices, the quality of health care is, at best, spotty. For example, a victim's chance of surviving a heart attack in a major urban area such as New York or Los Angeles has been estimated as 100 times better than in most of the rest of the United States.

What the medical profession, the individual and the community can do to prevent heart disease and equalize treatment are covered in this first program of "The Killers" series:

Medical Advisory Board for the "Heart" program: Doctor Campbell Moses (former medical director) American Heart Association; Doctor Theodore Cooper (director) National Heart & Lung Institute; Doctor Samuel Fox III (professor of medicine) George Washington University; Doctor Irvine Page (editor) Modern Medicine.

Photography sites include: Stanford Uni-

versity Medical Center, Palo Alto, California; Cedars of Lebanon Hospital, UCLA; Mt. Zion Hospital, San Francisco; Jet Propulsion Laboratory, Downey, California; Bowman-Gray Medical School, University of North Carolina, Winston-Salem, North Carolina; Cleveland Clinic, Cleveland, Ohio; Boston Children's Hospital, Boston, Massachusetts; Texas Heart Institute, Houston, Texas; University of Miami, Miami, Florida. □

## Poison Information Center Operational

Oklahoma's Poison Information Center, located in the State Department of Health in Oklahoma City, provides 24-hour telephone service to physicians, hospitals and individuals with poison emergencies. The telephone number of the center is area code 405—271-5454.

Every year some 40 Oklahomans lose their lives because of poisoning. Unfortunately, poisoning is the number one killer of preschool children.

Reference cards containing information as to composition, toxicity and recommended treatment are maintained on approximately 50,000 substances in the Oklahoma Poison Center files.

While the new telephone number is not a toll free number, if called from outside the greater Oklahoma City area, it is open all hours for calls concerning suspected or actual poisonings.

Recently the state health department, through the Poison Information Center and the Maternal and Child Health Services has made available telephone stickers with the Poison Information telephone number. The stickers will be provided to interested persons upon request and in quantity. They are to be used on telephones in waiting rooms, on mail statements, as giveaways in pharmacies, for special clinics, for hospital telephones, and in any other place where the Poison Information telephone number might be needed.

The director of the Oklahoma Poison Information Center is Anna S. Hefner, R. PhD. The center is operated under the auspices of the State Health Department's Maternal and Child Health Services directed by Sara R. DePersio, MD. □

## Alpha L. Johnson, MD, Honored



OSMA President C. Riley Strong (left) presents the A. H. Robins' Physicians Community Service Award to his longtime friend Alpha L. Johnson, MD, El Reno. Mrs. Johnson and A. H. Robins representative Jack Lynch joined the presentation. □

## University Hospital Inpatient Psychiatric Unit Operational

Until December of last year Ward 5-E at the University Hospital was a long-term adolescent treatment unit. Now the inpatient psychiatric unit, known as 5-E, has expanded its services to more adequately accommodate the needs of a general hospital and the community it serves.

Complete psychiatric services capable of caring for almost all psychiatric patients who will stay voluntarily are offered by 5-E. The exceptions are narcotic dependent persons and acute alcoholic withdrawal. The majority of patients are treated with the crisis approach. There are also short stay (two to four weeks) adult patients and intermediate stay (one to three months) adolescent patients.

The unit operates as a therapeutic community with patient government and committees. Stress is placed on the individual's responsibility for helping himself and other patients. The community grants privileges, changes in status, and participates in the treatment program for each of its members. Community guidance comes from a multi-disciplined professional staff and is under the

directorship of a fulltime psychiatrist. A half-time psychologist, psychiatric nurses, psychiatric aides, a psychiatric social worker, occupational therapist and public school teachers compose the remainder of the staff.

One added benefit of the unit is its service as a training area for psychiatric residents, clinical psychology interns, social work students, medical students, graduate nursing students and student teachers from Oklahoma University. Each 5-E patient receives individualized care from the director of the unit and all treatment plans are under the director's supervision.

Often an inpatient hospitalization is just the beginning of psychiatric treatment. An effort is made by the treatment staff to find facilities for continued care of any discharged patient. The staff of 5-E will contact a referral physician with a complete report for further care and remain available to answer questions concerning discharged patients.

Referrals to the unit should go through the University Hospital Mental Health Services Outpatient Clinic or the emergency room if after hours. Additional information about the unit can be secured from Joel A. Reisman, MD, Director, Inpatient Service.

Adolescent patients attend an accredited academic program where they may function in a high school setting with individualized attention. □

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## **George McVey, MD, Cited By The Chickasha Star**

Recognizing our pioneer doctors as having laid "the backbone for a strong and enduring nation," *The Chickasha Star* saluted George McVey, MD, Verden physician in the October 25th edition.

Born in 1882 in Knox County, Kentucky, Doctor McVey graduated from the University of Louisville School of Medicine in 1908. Later that year, he began his practice in Verden, Oklahoma. Doctor McVey remained in active practice until his retirement a few years ago. He spent part of these years practicing in Cyril before returning to Verden.

Practicing medicine from horse and buggy days to the days of wonder drugs and heart transplants has been quite a revelation to the pioneer doctor. Doctor McVey recalls many times when he has taken a cow as payment for the delivery of a baby. He has driven his horse and buggy through snowstorms and rainstorms to call on the sick. Sometimes it would take all day to go see a patient who lived only fourteen miles away. The doctor said there was lots of typhoid fever in those days and he would vaccinate anyone that would come to his office, free of charge. In the winter there was always the fight against pneumonia without the aid of present-day miracle drugs. He remembers purchasing his first automobile for approximately \$500 in 1915.

The OSMA joins *The Chickasha Star* in commending Doctor McVey for his long years of service and dedication to his profession.□

## **Medical Examiners Authorize PA Experiment**

An experiment in the use of the Physician's Associate is being conducted with the approval of the State Board of Medical Examiners. In the experiment a PA will operate a satellite clinic in a small community away from the location of his supervising physician.

In its order the board specified that the supervising physician was to report back to the board in person after the clinic had been in operation for three months. The clinic itself was to be in "adequate and rapid communication" with the supervising physician. In addition to routine medical records, the PA and the physician were to maintain a log indicating consultations and daily reviews.

As of November 1st there were 17 certified PAs working in eleven communities in the state of Oklahoma. At the present time the Veterans Administration Hospitals are the largest employers of PAs with two working in the V.A. Hospital at Muskogee and one in Oklahoma City. Three additional PAs are employed by the O.U. Medical Center in Oklahoma City.

There are ten communities in which the PAs are employed by private physicians. These include one each in Muskogee, Drumright, Waurika, Stilwell, Stillwater, Tishomingo, Shattuck, Sapulpa, Guthrie, and two in private employment in Ada.

The PA certification program is supervised by a Physician's Assistant Advisory Committee composed of two members of the State Board of Medical Examiners, two PAs, and a representative from the State Medical Association. The two board members are Roger J. Reid, MD, Ardmore and Francis R. First, MD, Checotah. William Stanhope, PA, is Director of the PA Program at the Health Sciences Center in Oklahoma City and Thomas Godkins, PA is Associate Director of the program. A representative from the state medical association is David Bickham, OSMA Associate Executive Director.

The PA Advisory Committee reviews each PA and his employment position before certification. In the case of the PA experiment, the employing physician is G. Edward Shissler, MD, Stillwater. He proposes that his PA, Fred Olenberger, will maintain a satellite clinic in Yale, Oklahoma. Tim K. Small-ey, MD, will also serve as a supervisor for the PA.

Under the rules of the Board, certification of the PA is limited to one physician, at one site and for one year at a time. In addition, his work is subject to monitoring by The Advisory Committee. Before a PA is certified his employing physician must furnish the board a detailed job description outlining the functions to be performed by the assistant.

In the experimental situation involving Doctor Shissler and Mr. Olenberger the doctor specified that the PA ". . . will provide care of minor acute and chronic disease, initial care of major acute disease, followup care of major chronic disease, and preventive care, including checkups and immunizations, in a satellite clinic at Yale, Oklahoma . . ."

The job description then goes on to set out the PAs exact functions. These include such

things as taking complete histories and performing physical examinations, running various types of laboratory tests. The PA will run his own EKGs and read them, with his reading to be confirmed by a supervising physician. He will be allowed to perform venepuncture and the preparation of blood and other specimens for analysis at the Stillwater Municipal Hospital or some other medical laboratory. The suturing of minor wounds and application of splints and other dressings will be his responsibility.

Whenever he encounters problems with severely ill patients he is directed to contact the appropriate supervising physician by telephone or radio. Arrangements for transporting the patient to Stillwater, including emergency medical or surgical care, will be under his supervision.

Each evening he shall present the day's clinical notes to his supervising physician in Stillwater. At least once a week there will be "consultation clinics" in Yale where the PA will present selected patients to the supervising physician.

In the letter authorizing the experiment the Board of Medical Examiners indicated that it was hopeful that it would succeed. Doctor Ed W. Young, Jr., MD, secretary of the board stated in the letter, "I should add that the general attitude of the board is of reserved enthusiasm since it is this type of operation that can extend the limits of health care, but it also has a potential for over extending the responsibility and liability of the PA."

Of the 17 physicians assistants employed throughout the state, Mr. Olenberger is the only one that will not be under the immediate supervision of a physician. He is a 1970 graduate of Oklahoma State University with a BS degree in zoology. In 1971 he entered the Physician's Associate training program at the O.U. Health Sciences Center.

Prior to completing his degree at OSU Mr. Olenberger had served in the United States Navy from 1963 until 1966. He was trained

as a hospitalman Class A, the equivalent to the Class A Medical Corpman in the United States Army. □

## Federal X-Ray Standards Information Available

An entire booklet has been devoted to the new federal x-ray standards being promulgated by the Bureau of Radiological Health, a Division of the Food and Drug Administration. These new standards will become effective August 1st, 1974, under authority of the Radiation Control and Safety Act of 1968.

Originally the 1968 act was to become effective on August 15th, 1973, however in June of this year the Food and Drug Administration delayed the effective date until August 1st of next year. At the state level the new federal regulations and standards will be enforced by the Occupational and Radiological Health Division of the Oklahoma Department of Health.

In a letter to the state medical association Dale McHard, Director of the Division stated, "The impact of the federal standards on this department's radiation control program is still quite unclear." He went on to point out that the inter-relationship between the federal and state programs is a point of contention, among others, that caused the delay in the effective date of the implementation of the federal standards.

Federal x-ray performance standards are regulations which have been promulgated by the Bureau of Radiological Health, Food and Drug Administration, under the authority of the Radiation Control for Health and Safety Act of 1968. These regulations established diagnostic x-ray machine manufacture and assembly standards. *They do not deal with the technique used or the decision as to whether an x-ray is to be taken.*

What affect these standards will have on the actual practice of medicine and the practitioner is at this time unknown. □

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## CONTRIBUTIONS

Articles accepted for publication, including manuscripts of annual meeting papers, are the sole property of *The Journal* and must not have been published elsewhere. Authority for approval of all contributions rests with the Editorial Board, and the Board reserves the right to edit any material submitted. Manuscripts should be typewritten, double spaced and submitted in original and one copy. Receipt of manuscripts will be acknowledged and unused manuscripts returned. Used manuscripts will be returned on request. *The Journal of the Oklahoma State Medical Association* is not responsible for the statements or opinions of any contributor.

## STYLE

Footnotes, bibliographies, and legends for illustrations should be submitted on separate sheets, double-spaced. Bibliographies should follow in order of: name of author, title or article, name of periodical with volume number, page and date of publication. These references should be alphabetized and numbered in sequence.

## ILLUSTRATIONS

Illustrations, other than the author's will not be accepted for publication unless accompanied by written permission to be reproduced. Illustrations should be identified by the author's name and the figure number of the illustrations. The illustrations should be numbered in the same order as referred to in the body of the article. Used photographs, and drawings will be returned after publication if requested. *The Journal* will pay for necessary black and white illustrations within reasonable limitations. The quality of drawings, sketches, etc., must be in keeping with the quality of the magazine.

## NEWS

Members of the Oklahoma State Medical Association, the constituent societies of the association, and all readers in general are invited to supply news items of general interest to the profession.

## ADVERTISING

All advertising copy must be approved by the Editorial Board before acceptance for publication. General and miscellaneous advertising rates will be sent on request.

## EDITING SERVICE

The Editorial Board reserves the prerogative to submit contributions to a Medical Editing Service when warranted. If such is felt necessary, the Editor will contact the author for approval, informing him that there will be modest charge for this service.

## REPRINTS

Authors will receive reprint order forms from the Transcript Press, P.O. Drawer 1058, Norman, Oklahoma 73069, prior to final publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

## BACK ISSUES

Microfilm copies of back issues of *The Journal* may now be purchased from University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

## An Open Letter To A VIP— The Doctor's Spouse

You ARE a very important person! Without you there can be no auxiliary. We need YOU and hope you need US. Every member is an integral part of the organization and determines to some degree just what the organization really is. So, you command our attention and your preferences determine the auxiliary activities.

Many of our husbands (or wives) are in an area in which there is no organized auxiliary. We would like to welcome you who are in this situation to join us as Members-at-Large. Members-at-Large receive ALL state mailings including "Sooner Physician's Wife"; the national auxiliary magazine, "MD's Wife" and "The Direct Line Newsletter," published by Woman's Auxiliary to the AMA, which give information and suggestions on the various activities of the auxiliary that might be used in your own community.

During the state meeting in the spring, a Members-at-Large tea is held so that we might become better acquainted with you.

Members-at-Large dues are \$7.00. These may be sent to the state treasurer, Mrs. James Haddock, 1028 Cruce, Norman, Oklahoma.

JOIN US, WE CAN DO MORE TOGETHER.

*Loretta Renfrow, Chairman*  
Membership Committee

### AMA-ERF

The alphabet way of life has become a routine way of expression and we assume everyone knows what we are talking about. This is not necessarily so. We need to emphasize at every opportunity that AMA-ERF

stands for American Medical Association Education and Research Foundation.

The purpose of the AMA-ERF program is to help eliminate the financial barrier to medicine for all who are qualified and accepted by an approved training institution. This purpose is twofold (1) to provide unrestricted grants to medical schools and (2) to enable medical students, interns and residents to obtain low-interest loans not otherwise available.

This is the only fund raising project of the auxiliary. In 1973-74 our goal nationally is a contribution of ten dollars (\$10.00) per member. Oklahoma auxiliary with your help met this goal last year with \$11.01 per member. We are enlisting the participation again of those who gave last year and many more new ones this year. We would like to exceed this amount this year.

If all of us would give in this proportion the national goal to raise \$1 million for AMA-ERF could easily be met, with no hardship on anyone.

The Christmas card program and Memorial contributions are big business and our best fund raisers. I know all of you are aware these contributions are tax deductible, but it is always good to repeat this bit of good news.

With the beginning of our program this September your county auxiliary AMA-ERF Committees are contacting as many physicians as possible, by mail and then by personal contact. Please give these ladies a few minutes of your time; it might be your wife working on this committee.

Oklahoma School of Medicine received \$11,321.22 in unrestricted funds from AMA-ERF last year. With all of us participating we can exceed this amount. Thank you in advance for your help. *Martha Hendren* □

## *Fraud: Government Issue*

Not long ago I read that fewer than one-tenth of one percent of the nation's physicians were guilty of submitting fraudulent Medicare claims. I have never read or heard a figure representing the number of physicians who have been defrauded, not to mention defamed and maligned, by our government's Medicare program. I would guess it approaches ninety percent or more. And, of course, one-hundred percent of Medicare "beneficiaries" are victims of this politically motivated fraud.

If you find it difficult to accept these views as valid you are either naive or unaware of the meaning of 'fraud.'

From its earliest beginnings, Medicare has been represented to be a plan which would provide payments for physicians and hospitals engaged in the medical care of its subscribers. No mention was or has been made of the fact that the pretended underwriter and not the physician would determine the essential and therefore compensable elements of medical care. Certainly there has been no intimation that, in most cases, such determinations would be made independently and summarily by the officials of Medicare. Incomplete disclosure is a hallmark of fraud.

Traditionally, Medicare has been promoted as a program which would help preserve the health and prevent illness among its participants. In truth, however, it provides for payments only in connection with illnesses and thus discourages all health maintenance efforts. Deception is an integral component of fraud.

Completely ignoring the complexities of human illness and the great variation in the

amounts of time needed to resolve those complexities, Medicare pretends that every case of pneumonia, for example, can be diagnosed and treated in exactly the same way and in exactly the same amounts of time, as any other case of pneumonia. A ludicrous pretension, even for a layman. Nevertheless, a physician who charges a realistic fee for the time he spends in caring for a patient who is afflicted with pneumonia and Medicare, is denied equitable remuneration. To compound the theft of his time, his patient is informed, in words typed on a financial transaction document, that his physician has overcharged him. There is no suggestion that, in fact, Medicare has underremunerated the patient or underpaid his physician. Derogation of integrity and honesty is the forerunner and companion of fraud.

In its original form and size, with its restrictions and limitations, Medicare was viewed (probably erroneously) by physicians as providing a fairly reasonable schedule of payments; by economists as a possibly bearable burden and by the public as a real bargain. Since its birth, however, Medicare has, not at all surprisingly, undergone a rapid metamorphosis. From a small foot in the door, it has forced itself in, and is devouring great chunks of our resources. It is demanding more in premiums while giving less in benefits. It has increased the paper-work burden of physicians and hospitals; consequently it has raised the cost and reduced the resources of medical care for everyone. It has destroyed the confidentiality of and wilfully alienated the physician-patient relationship. It is a parasite masquerading as a host. Trickery is characteristic of fraud.

MRJ



As I write the President's Page today I am flying to Los Angeles to see my new granddaughter. This is also Ruth Ellen's and my 35th wedding anniversary, so we have a double happiness today.

While in California, I will attend the AMA meeting. I am very hopeful that I will have much news for you about PSRO, National Health Insurance and some of our pressing problems when I return.

As you should know, the Board of Trustees has ordered the Oklahoma Foundation for Peer Review to become active. Hillard Denyer, MD, President of the Foundation, will also attend a December 1st PSRO conference in California. This foundation may be our salvation in the future with respect to PSRO.

Doctor Tom Lynn called me the other day and wishes to have a conference on the Family Practice Residency and the Physicians Assistant School at the University of Oklahoma Health Sciences Center. We must all be alert to these fine programs and give Tom our sup-

port. Watch for his articles in *The Journal*.

I have also been appointed to the Search Committee for a permanent Provost of the Health Sciences Center. I favor bringing new blood into this very important position.

We have now had three District Meetings in the state. Please be alert for the one in your district.

I am trying to give the membership an insight into the operation of OSMA, the benefits of belonging to the OSMA, and to make everyone aware of the issues of PSRO and National Health Insurance. I do want to seek your help in having an active and vibrant OSMA.

With your help we can do it!! Remember the staff and officers are always anxious to hear from you, the membership. If all of us put our heads together, someone will come up with some good ideas for helping the association and all of us.

Fraternally,

A handwritten signature in cursive script that reads "C Riley Strong MD".

C. Riley Strong, MD

# Clinical Evaluation of Doxapram Hydrochloride, A Respiratory Stimulant

JOSEPH L. MARTIN, MD

*Anesthesiologists are frequently faced with the need to speed the patients' recovery from anesthesia. Doxapram provides an effective method of increasing ventilation in the depressed patient.*

## INTRODUCTION

Investigations of the respiratory-stimulating and arousal properties of doxapram hydrochloride\* were reported in the medical literature as early as 1962.<sup>1,4</sup> Several well-documented pharmacologic and chemical studies have shown that doxapram, at recommended doses, will effectively stimulate the depressed respiratory center in the presence of inhalational anesthetics, barbiturates or other central nervous system depressants.<sup>5,7</sup> This activity appears first at doses which have only a minimal arousal effect upon the patient. With a considerable increase in dose, however, respiratory stimulation becomes proportionately greater, and the higher levels of brain and spinal cord become involved. While influencing the respiratory rate to a lesser degree,

the drug produces an immediate rise in tidal volume leading to a marked increase in alveolar ventilation which is desirable in the postanesthetic period.<sup>8,10</sup>

The present study has been conducted on a broad cross-section of surgical patients to further observe and measure the forementioned qualitative and quantitative responses to doxapram when administered in the immediate postanesthetic period.

## METHOD

The study population, consisting of 285 male and female surgical patients, ranged in age from two to 84 years with 206 (71%) falling between 21 and 60 years of age.

Pre-medication in most cases consisted of scopolamine 0.4 mg and oxymorphone 0.5 mg to 1.0 mg, administered one hour preoperatively. Anesthesia was induced with various combinations of thiopental, nitrous oxide, halothane, cyclopropane and methoxy-fluorane. Depending on the type of operation, succinylcholine or curare were used for muscle relaxation at the discretion of the anesthesiologist.

Following surgery, those patients who had responded sufficiently to be moved to the recov-

\*Doxapram® Injectable, A. H. Robins, Richmond, Virginia.

ery room were immediately examined for respiratory minute volume (Wright Respirometer with mask for 30 seconds), respiratory rate, and minimum and maximum tidal volumes. Blood pressure, pulse rate and arousal state were ascertained, and the presence of nausea, vomiting and other reactions carefully noted.

Estimation of levels of anesthesia was based on breathing patterns, movement in extremities, and signs of talking, swallowing, coughing and chewing. Stage I designated patients were those who talked, responded to commands, and who were oriented, demonstrating good respiratory exchange. Those who could swallow, display muscle movement, and respond to pain stimuli, but who had irregular respiratory patterns with some breath-holding, were grouped into Stage II. Patients in Stage III were unresponsive to stimuli, had a decreased respiratory exchange, and remained quiet on the stretcher.

In 279 cases (six patients received intramuscular injections), intravenous doxapram was administered rapidly into the antecubital vein, or via intravenous tubing, and the previously mentioned measurements and observations were reported at appropriate intervals. Initially, post-drug data were obtained two minutes after injection, but when it became evident, in some instances, that drug response was often diminished by this time, more suitable intervals were chosen to evaluate response. In a large number of cases, a dose of 1 mg/kg given at the start of the study was found to produce excitability, excessive movement, breath-holding and objection to face mask. Gradual reduction to 0.5 mg/kg or less, still produced a desirable respiratory response and some arousal and made the patient considerably more manageable. All subsequent doses, including those for arousal,

were individualized according to the response to the initial injection and the estimated level of anesthesia. Doses ranged from 0.22 mg/kg to 6.5 mg/kg, with patients in arousal Stages I and II receiving 1.5 mg/kg or less, and those in Stage III receiving doses up to 6.5 mg/kg. Overall, it was found that small, frequently repeated doses permitted better control over the patient and prevented undue stimulation. In cases of prolonged recovery, a continuous 0.2% infusion, at an average rate of 2-3 mg/min, proved the most effective means of administration.

## RESULTS

### Respiratory Minute Volume

The control respiratory minute volumes by age group and by dose of doxapram are summarized in Tables 1 and 2. In most cases the respiration of these patients was only moderately depressed. Exceptions were two patients over the age of 60 years with respiratory minute volumes of 2020 ml and 2080 ml and five apneic patients on whom tests were started while still in the operating room. In 81 of the 212 patients on whom respiratory data are available, there was an increase in minute volume greater than 100%. Thirty-seven showed an increase of 51% to 100%, and 52 cases indicated an increase of up to 50%. No increase was evident in 42 cases. Of these 212 patients, 68 received a muscle relaxant, either curare (37 patients) or succinylcholine (31 patients), during anesthesia and 144 received no muscle relaxant during surgery. Table 3 shows the percentage increase in minute volume by dose and age group and also indicates usage of muscle relaxants.

### Arousal

All patients in anesthesia Stages I and II were aroused to some extent following doses of up to 1.5 mg/kg of doxapram. Patients in Stage I obviously showed a greater degree of response. The arousal effect in Stage III was the least pronounced at doses of 0.5 to 1.5 mg/kg. Of 170 patients in this group who received up to 1.5 mg/kg, 149 showed some effect while 20 showed none at all. Of the total number of patients in this group (191) who received up to 6.5 mg/kg of drug, arousal was observed in 160 but not at all in 31.

Transient neuromuscular signs of excessive central nervous system stimulation at single

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TABLE 1

MEAN VALUES OF RESPIRATORY MINUTE VOLUME IN ML  
PRE-DOXAPRAM  
BY AGE GROUP AND DOSE RANGE (MG/KG, IV)

Doxapram Mg/Kg	<6 years		6-20 years		21-40 years		41-60 years		>60 years	
	Minute Volume	No. Patients	Minute Volume	No. Patients	Minute Volume	No. Patients	Minute Volume	No. Patients	Minute Volume	No. Patients
<0.4	—	—	—	—	10,995	4	5,620	2	7,228	7
0.4-0.7	4,413	3	7,178	10	8,721	36	8,858	42	7,751	26
0.7-1.0	2,960	1	9,235	6	8,651	29	7,737	39	8,988	10
>1.0	—	—	6,959	4	7,364	13	7,503	11	2,020	1
*Total Patients & Mean Minute Volume By Age Group	4,049	4	7,751	20	8,592	82	8,165	94	7,818	44

\* 41 Patients excluded from tabulation due to insufficient data.

dose levels of 1 mg/kg appeared in very few patients. Seven patients exhibited excitement, tremor was evident in three, and rigidity in two. Decreasing the dose by half gave more predictable and desirable responses in these instances.

#### Blood Pressure

Pre-doxapram blood pressure data were available on 194 patients. At this point in the study, 19 patients were considered hypotensive (average blood pressure 109/58 mmHg), 138 were normotensive (average blood pressure 125/90 mmHg) and 37 were hypertensive (average blood pressure 157/104 mmHg).

Changes in blood pressure following administration of doxapram are tabulated in Tables 4 and 5. In the 19 patients who were hypoten-

sive at the end of surgery the drug produced an average blood pressure change of +9/+14 mmHg.

In the 138 normotensive patients injection of doxapram produced an average blood pressure change of +4/+4 mmHg in one minute.

The hypertensive group of 37 patients showed an average blood pressure change of +3/-1 mmHg.

In all but the hypertensive diastolic blood pressure category, the average trend was toward an increase in blood pressure following injection with doxapram. The effect on systolic pressure was greater than that on diastolic pressure and greatest in patients who had pressures below the average in their category. For example, among the normotensives, 61 had systolic pressures above the average of

TABLE 2

MEAN VALUES OF RESPIRATORY MINUTE VOLUME IN ML  
ONE MINUTE POST-DOXAPRAM  
BY AGE GROUP AND DOSE RANGE (MG/KG, IV)

Doxapram Mg/Kg	<6 years		6-20 years		21-40 years		41-60 years		>60 years	
	Minute Volume	No. Patients	Minute Volume	No. Patients	Minute Volume	No. Patients	Minute Volume	No. Patients	Minute Volume	No. Patients
>0.4	—	—	—	—	11,955	4	9,670	2	11,242	7
0.4-0.7	—	—	11,976	10	12,175	35	12,109	42	10,914	28
0.7-1.0	—	—	9,455	6	12,883	29	15,741	39	14,951	9
>1.0	—	—	19,160	3	14,243	11	17,350	6	9,820	1
*Total Patients & Mean Minute Volume By Age Group	—	—	12,314	19	12,711	79	13,999	89	11,748	45

\* 53 Patients excluded from tabulation due to insufficient data.

125 mmHg. Of this number, 58% had an increase after doxapram was injected and 29% had none. In contrast, 77 patients with pressures below the average, showed an increase in systolic blood pressure in 84%, a decrease in 10% and no change in 6%. Similar quantitative trends were observed among patients considered hypertensive at this same period.

#### Side Effects

Observation for possible drug effects on the cardiovascular system, other than those already discussed, revealed tachycardia in four patients, bradycardia in one patient and cardiac arrest in one. Arrest occurred in a 74-year-old severely emphysematous male following

cholecystectomy. Respiratory reserve was borderline and residual paralysis from curare during the procedure may have been critical. Response in the recovery room was poor and the patient progressed to cardiac arrest in 50 minutes despite edrophonium, atropine, methoxamine, two 30 mg injections of doxapram and respirator assistance. He responded to closed chest massage, sodium bicarbonate and ephedrine, and stabilized temporarily but gradually deteriorated and died 55 hours postoperatively. It is felt that doxapram did not contribute to the death of this patient.

Possible side effects related to direct action of the drug, or to physiologic responses to the drug's action included coughing, laryngospasm, breath-holding and salivation. Nausea

TABLE 3

COMPARISON OF PERCENT INCREASE IN MINUTE VOLUME (PRE- AND ONE MIN. POST-DOXAPRAM) BETWEEN MUSCLE RELAXANT (SUCCINYLCHOLINE & CURARE) AND NO MUSCLE RELAXANT  
BY AGE GROUP AND DOSAGE GROUP OF DOXAPRAM

DOSE AND AGE GROUP	0			<50%			51-100%			>100%			Total No. of Patients
	MR		NMR	MR		NMR	MR		NMR	MR		NMR	
	SUC	CUR		SUC	CUR		SUC	CUR		SUC	CUR		
Doxapram <0.4 mg/kg													
<6 years	0	0	0	0	0	0	0	0	0	0	0	0	
6-20 years	0	0	0	0	0	0	0	0	0	0	0	0	
21-40 years	0	0	1	0	0	3	0	0	1	0	0	0	
41-60 years	1	1	0	1	0	1	0	0	0	0	1	1	
>60 years	1	0	0	1	0	1	1	0	0	0	1	1	
TOTALS	2	1	1	2	0	5	1	0	1	0	2	2	17
Doxapram 0.4-0.7 mg/kg													
<6 years	0	0	0	0	0	0	0	0	1	0	0	0	
6-20 years	1	0	0	3	0	1	0	0	0	0	0	4	
21-40 years	1	2	3	1	1	7	1	0	4	2	3	2	
41-60 years	1	1	6	2	4	3	0	2	5	3	3	4	
>60 years	0	3	2	1	1	3	1	0	4	0	0	3	
TOTALS	3	6	11	7	6	14	2	2	14	5	6	13	89
Doxapram 0.7-1.0 mg/kg													
<6 years	0	0	0	0	0	0	0	0	0	0	0	0	
6-20 years	1	0	2	0	0	0	0	0	0	0	0	0	
21-40 years	0	0	1	1	0	8	0	1	2	0	0	10	
41-60 years	0	1	5	1	0	3	0	1	5	0	3	17	
>60 years	0	1	1	0	0	1	0	0	2	0	0	4	
TOTALS	1	2	9	2	0	12	0	2	9	0	3	31	71
Doxapram >1.0 mg/kg													
<6 years	0	0	0	0	0	0	0	0	0	0	0	0	
6-20 years	0	0	0	0	1	1	0	0	0	1	0	2	
21-40 years	1	1	1	0	0	1	1	1	0	1	1	7	
41-60 years	1	1	1	0	0	1	1	1	2	0	0	6	
>60 years	0	0	0	0	0	0	0	0	0	0	1	0	
TOTALS	2	2	2	0	1	3	2	2	2	2	2	15	35

Of the 212\* patients tabulated, 68 patients received muscle relaxants, 31 received succinylcholine, and 37 received curare.

144 patients did not receive muscle relaxants.

SUC = succinylcholine                      CUR = CURARE

\* 73 patients excluded from tabulation due to insufficient data.

TABLE 4

CHANGES IN BP (mmHg) ACCORDING  
TO BP CATEGORY

	Hypotensive Systolic Diastolic		Normotensive Systolic Diastolic		Hypertensive Systolic Diastolic	
Average BP Pre-Doxapram	109	58	125	90	157	104
Average Change In BP 1 min. Post-Doxapram	+9	+14	+4	+4	+3	-1
Average Increase In BP 1 min. Post-Doxapram	+21	+16	+15	+13	+16	+8
Average Decrease In BP 1 min. Post-Doxapram	-10	-2	-10	-8	-14	-15

and vomiting following anesthesia were not considered unusual or doxapram-related in this series. Coughing and gagging were probably manifestations of the return of protective reflexes secondary to arousal. Shivering and hiccups are routinely observed in a small percentage of patients following anesthesia.

There was no irritation apparent at injection sites with either intravenous or intramuscular administration of doxapram.

No evidence of a cumulative drug effect was observed in this study. The only indication of extended doxapram activity was the indirect benefit produced by elimination of the volatile anesthetics during the period of drug-induced hyperventilation.

#### DISCUSSION

Most respiratory stimulating agents have been poorly accepted, and used rather sparingly because of a high incidence of unpredictable responses including convulsive seizures. But the wide margin between the convulsant dose and the respiratory stimulant dose of doxapram enables the anesthesiologist to properly adjust dosage for safe and effective establishment of spontaneous breathing without risk of excessive central nervous system stimulation. When controlled respiration is used in the management of anesthetic depression, it is sometimes

TABLE 5

NUMBER OF PATIENTS SHOWING  
CHANGE\* 1 MINUTE POST-DOXAPRAM  
COMPARED WITH PRE-DOXAPRAM VALUES

	Hypotensive Systolic Diastolic		Normotensive Systolic Diastolic		Hypertensive Systolic Diastolic	
Increase	8	14	54	39	17	7
Unchanged	3	2	21	40	5	15
Decrease	2	0	18	20	8	7
Not Stated	6	3	19	13	6	7
Total Patients	19		112		36	

\* $\pm 6$  mmHg taken as indicative of change for purposes of tabulation.

Only 167 patients included in tabulation; others excluded due to insufficient data.

necessary to let the patient build up excessive levels of carbon dioxide or approach hypoxia in order to initiate spontaneous breathing. In my experience, these risks can be effectively eliminated with the use of doxapram.

The drug can also serve as a diagnostic agent in situations of prolonged apnea. It does not affect the neuromuscular blockade of muscle relaxants, and therefore will not terminate apnea of that etiology. Apnea resulting from incomplete reversal of neuromuscular blockade is partially influenced by doxapram. In this situation there is an obvious respiratory response to doxapram since measurement indicates increased respiratory rate while tidal volume decreases. The reason for this is that non-paralyzed muscles are already responding. Therefore, the respiratory center can respond only with an increase in rate resulting in decreased tidal volume. If non-depolarizing relaxants have been used, an effective response will be obtained from a combination of doxapram with a specific anticholinesterase agent such as edrophonium. When the apnea results from the effect of narcotic drugs, it is preferable to use a narcotic antagonist prior to the use of doxapram.

## SUMMARY

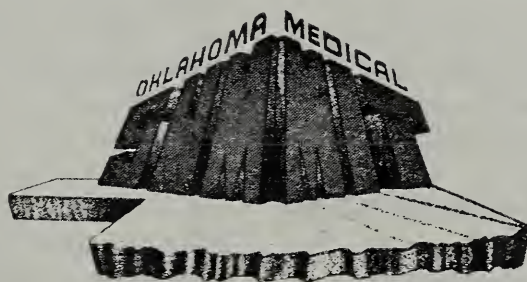
A clinical study to determine the effectiveness and safety of doxapram hydrochloride in postanesthetic depression, was conducted on 285 male and female surgical patients ranging in age from two to 84 years. In most cases, the drug was found to improve tidal volume and to hasten arousal and return of protective reflexes, usually with a slight concomitant increase in blood pressure.

Use of doxapram to produce respiratory stimulation appears to be a predictable, safe and effective method of restoring and improving spontaneous respiration in patients with postanesthetic depression at doses far below that required to elicit generalized central nervous system stimulation.

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# OKLAHOMA MEDICAL SUMMIT

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Oklahoma City, Oklahoma

# A Real Estate Transaction For The Physician And His Children

ROBERT W. GADDIS\*

*A low-cost investment that will reduce taxes, benefit family members, accomplish estate planning goals, and that will provide a good return on your money.*

## INTRODUCTION

Although physicians are incessantly assaulted with a barrage of suggested investment possibilities, the complexity and/or speciousness of these suggestions leaves the physician in a continuing quandary as to the best investment modality for his particular situation. Although the investment possibility presented in this discussion is suitable only for physicians with older children, the forthrightness and simplicity of this possibility merit its strong consideration by those physicians who will eventually have older children, as well as those presently having older children.

The proposal is very simple and very obvious, and, of course, as is the way with such concepts, is generally overlooked. The proposal is to simply build a house, with a minimum down payment, and then rent the house to one of your children who is in need of housing. This transaction offers three primary benefits: a good return on investment,

tax shelter, and filial benefits. The following discussion will explain how the transaction is to be structured and operated, as well as analyzing the above-mentioned benefits, and will conclude with an overview of various techniques for eventual disposition of the property.

## Structure and Operation

The starting point for an analysis of this transaction is Section 162(a) of the Internal

Table I

### DEPRECIATION CALCULATION

(200% Declining Balance, 40 year useful life.)

Year	Remaining Basis	Depreciation Allowance
1	\$21,000.00	\$1,050.00
2	19,950.00	997.50
3	18,952.50	947.62
4	18,004.88	900.24
5	17,104.64	855.23
6	16,249.41	812.47
7	15,436.94	771.85
8	14,665.09	733.25
9	13,931.84	696.59
10	13,235.25	661.76
11	12,573.49	628.67
12	11,944.82	597.24

Table II

## DEDUCTIBLE EXPENSES IN EACH YEAR

(\$21,000.00 Financed at 7.5% with Monthly Payments for 25 Years.)

<u>Year</u>	<u>Depreciation*</u>	<u>Interest</u>	<u>Taxes &amp; Insurance</u>	<u>Maintenance</u>	<u>Total</u>
1	\$1,050.00	\$1,564.92	\$600.00	\$150.00	\$3,364.92
2	997.50	1,541.82	600.00	150.00	3,289.32
3	947.62	1,516.96	600.00	150.00	3,214.58
4	900.24	1,490.12	600.00	150.00	3,140.36
5	855.23	1,461.24	600.00	150.00	3,066.47
6	812.47	1,430.12	600.00	150.00	2,992.59
7	771.85	1,396.58	600.00	150.00	2,918.43
8	733.25	1,360.43	600.00	150.00	2,843.68
9	696.59	1,321.45	600.00	150.00	2,768.04
10	661.76	1,279.46	600.00	150.00	2,691.22
11	628.67	1,234.22	600.00	150.00	2,612.89
12	597.24	1,185.48	600.00	150.00	2,532.72

\*From Table I.

Revenue Code (IRC) which allows a deduction for "trade or business" expenses. Thus, the taxpayer, to avail himself of the trade or business deduction, must, among other things, show that he is actually engaged in a trade or business—specifically, in this case, in the trade or business of renting residential dwellings. The trade or business requirement will present no real barrier in this transaction as long as the physician rents the property at prevailing fair market values for such rental property. Thus, in one case<sup>1</sup> taxpayer's claims for maintenance and depreciation deductions were disallowed because rental rates to a family member were set at an excessively low amount, and the court accordingly held there was no expectation of profit, an essential requirement for trade or business deductions. From the outset, therefore, the physician must enter this transaction, realizing he will have to charge prevailing rent rates to avail himself of the trade or business deduction for expenses connected with the rental structure.

For analytical purposes, I have made the following assumptions: (These assumptions are intended to approximate reality.)

- (1) \$5,000.00 cost for lot.
- (2) \$21,000.00 cost of constructing 1200 sq ft residential structure at \$17.50/sq ft.
- (3) \$5,000.00 down payment. (Although this down payment is somewhat higher, representing 19.23% of the project price, than the usual down payment in a leveraged trans-

action, a down payment of this percentage is generally required to obtain favorable interest rates on residential construction loans.)

(4) \$21,000.00 loan at 7.5%. (It should be anticipated that current rates will return to realistic levels.)

(5) \$215.00/mo. rental rate.

(6) \$750.00 annual expenses for insurance, taxes and maintenance. (Calculated by allowing \$150.00 annually for maintenance and \$600.00 annually for taxes and insurance.)

(7) Forty (40) year useful life for depreciation purposes.

## Return on Investment

Under the foregoing facts, the investment of \$5,000.00 will yield an annual, after tax return of approximately 13.0% (see Table V), assuming the physician is in a 50% tax bracket, which will be the case of most physicians having children old enough to need homes of their own. Although this return is not striking as compared, e.g., to recent returns for those dealing in various agriculture futures, the return is reasonable, and it must be remembered that return on

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Table III

## DEDUCTIONS FOR TAX PURPOSES

Year	Allowable Deductions*	Income**	Total Deductions
1	\$3,364.92	\$2,580.00	\$784.92
2	3,289.32	2,580.00	709.32
3	3,215.58	2,580.00	635.58
4	3,140.36	2,580.00	560.36
5	3,066.47	2,580.00	486.47
6	2,992.59	2,580.00	412.59
7	2,918.43	2,580.00	338.43
8	2,843.68	2,580.00	263.68
9	2,768.04	2,580.00	188.04
10	2,691.22	2,580.00	111.22
11	2,612.89	2,580.00	32.89
12	2,532.72	2,580.00	[47.28]***

\* From Table II.

\*\* \$215.00 monthly rental rate.

\*\*\* In the twelfth year the investment starts producing taxable gain.

investment, though important, is not the sole justification for this transaction.

## Tax Shelter

The 1969 Tax Reform Act (TRA) did much to remove the tax shelter available from ownership of rental property. The thrust of the TRA in respect to real estate was to disallow excess depreciation. (Excess depreciation is the depreciation in excess of straight line depreciation.) Indeed, one of the few areas in which excess depreciation is *still* allowed is in regard to so-called "Section 1250 property" which includes new and used residential rental property.<sup>2</sup> Thus, in the case of new residential rental property the maximum allowable depreciation is now 200% of the straight line rate.<sup>3</sup> Used rental residential property offers even less of an advantage since it is limited to 125% of straight line rates.<sup>4</sup>

To calculate the tax shelter one receives from an investment, he must net his deductions against income. Table III shows these calculations for our hypothetical transaction. Thus, in the first year of the transaction there is a net tax deduction of \$784.92. For a 50% bracket

taxpayer, this represents a tax savings of \$392.46. Calculations for tax savings are reflected in Table V which gives the annual return on a down payment of \$5,000.00.

## Benefits To Children

The typical situation confronting young adults who have completed their education and are ready to enter the working class is one of high earning potential, coupled with little capital accumulation. Inevitably, young adults must postpone home ownership until they have accumulated sufficient capital for such an acquisition.

However, under the proposal we are discussing, the family can assist the children, with both parties receiving reciprocal benefits: the family is given a good return on its investment, while the children are able to have a somewhat higher standard of living than they could perhaps otherwise afford. Additionally, the children should not feel as though they are dominated by their parents, as the entire transaction is conducted at prevailing market prices and in a businesslike manner.

## Disposition

As can be seen from Table V, after about the seventh or eighth year, the investment

Table IV

## ANNUAL CASH FLOW

Year	Income +	Equity*	—	Expenses**	= Profit
1	\$2,580.00	\$297.36		\$2,612.28	\$265.00
2	2,580.00	320.46		2,612.28	288.15
3	2,580.00	345.32		2,612.28	313.04
4	2,580.00	372.16		2,612.28	339.88
5	2,580.00	401.04		2,612.28	368.76
6	2,580.00	432.16		2,612.28	399.88
7	2,580.00	465.70		2,612.28	433.42
8	2,580.00	501.85		2,612.28	469.57
9	2,580.00	540.83		2,612.28	508.55
10	2,580.00	582.82		2,612.28	550.54
11	2,580.00	628.06		2,612.28	595.78
12	2,580.00	676.80		2,612.28	644.52

\* These figures represent equity acquired in each year.

\*\* \$155.19 monthly mortgage payments plus \$750.00 annually for taxes, insurance and maintenance.

Table V  
RETURN ON \$5,000.00 INVESTMENT

Year	Profit*	Tax Savings**	Total	Percent
1	\$265.00	\$392.46	\$657.46	13.1
2	288.15	354.66	642.81	12.9
3	313.04	317.79	630.83	12.6
4	339.88	280.18	620.06	12.4
5	368.76	243.24	612.00	12.2
6	399.88	206.30	606.18	12.1
7	433.42	169.22	602.64	12.0
8	469.57	131.84	601.41	12.0
9	508.55	94.02	602.57	12.0+
10	550.54	55.61	606.15	12.0+
11	595.78	16.44	612.22	12.2
12	644.52	[23.64]***	620.88	12.4

\* From Table IV.

\*\* Represents savings for a 50% bracket taxpayer, based on deductions derived in Table III.

\*\*\* In the twelfth year the investment starts generating taxable income, on which a tax of \$23.64 will be due, in that year.

ceases to furnish much tax shelter; however, as may be seen from the same table, the return on the investment remains almost constant at a good yield. Once the investment ceases to provide tax shelter, however, the physician may wish to dispose of the property in favor of another property.

In addition to the loss of tax shelter, however, there are other good reasons to dispose of the property at some point after the fifth year. This property makes very good property for a gift. By making a gift of the property, with the children taking subject to the mortgage, the physician has not only benefited his children, but has reduced his estate for estate tax purposes.

There is another very good reason to make a gift of this property. Ordinarily, upon the disposition of real estate, the seller must "recapture" as ordinary income (which means taxation at 50% for a 50% bracket taxpayer) all depreciation in excess of straight line.<sup>5</sup> All other gain is treated as capital gains to the extent the property has been held for more than six months. However, in the case of a gift of

real property (so-called "Section 1250 property") there is no recapture of excess depreciation.<sup>6</sup> Thus, the physician is able to transfer the property with no taxes, assuming he avails himself of gift making techniques utilizing his annual exemption and lifetime exclusion. (The physician may wish to only avail himself of the \$3,000.00/yr/donee exclusion, as Oklahoma recognizes no lifetime exemption as is found at the federal level. Thus, to the extent there is a gift in excess of \$3,000.00/yr/donee, there will be an Oklahoma gift tax.)

Obviously, the physician could always sell the property, in the event he does not want to make a gift of it. One point to bear in mind regarding sale of real property, is the possibility for a tax free sale of such property in a transaction that is referred to as a "like kind exchange."<sup>7</sup> Here, the taxpayer simply sells one piece of property, and invests the proceeds in a property *similar* in use to that of the property sold.<sup>8</sup>

## Conclusion

The purchase or construction of a new residential rental property offers the physician financial and familial benefits. Additionally, this transaction offers the physicians an opportunity to effectuate estate planning goals. Overall, though the return on investment is not spectacular, the transaction should receive strong consideration by physicians to whom it might apply.

## NOTES

1. Nicath Realty Co., Inc. v. [Comm.], T. C. Memo. 1966-246.
2. IRC 167 (j).
3. IRC 167 (j)(2).
4. IRC 167(j)(5).
5. IRC 1250.
6. IRC 1250(d)(1).
7. IRC 1031.
8. This statement over simplifies the transaction. Technically, Section 1031 contemplates an actual "exchange" of one piece of property for a similar piece of property. Reg. 1.1031(a)-1. However, in reality tax free Section 1031 exchanges are effectuated where there "... is a taxpayer desiring to exchange property, a prospective purchaser of the taxpayer's property, a prospective seller of the property the taxpayer wishes to receive in exchange, and a fourth party. In a simultaneously executed transaction (usually done through escrow) the fourth party receives the taxpayer's property and sells that property to the prospective purchaser." Leslie Q. Coupe and Maybelle Coupe, 52 T.C. 394 (1969).

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# Managing The University

*"A Report on Admissions to the College of Medicine"*

## I. An Overview of Medical School Admissions

The struggle for admission to the University of Oklahoma College of Medicine parallels and reflects the conditions nation-wide: an abundance of candidates, many of them extremely well-qualified, competing for an increasing but still small number of first-year places in accredited schools.

*The Advisor*, a newsletter published by the Association of American Medical Colleges for pre-med advisors, deans and student affairs officers of U.S. and Canadian medical schools, reported in its May issue that the number of first-year places in U.S. medical schools has increased from 8,298 in 1960-61 to 13,679 in 1972-73. However, this 65 percent increase in available entering places has not kept pace with the soaring number of applicants, approximately 37,000 for 1972-73, which is 157 percent greater than the 14,397 individuals who applied for the class entering 1960-61. It is anticipated that 40,000 applicants sought entry for 1973-74 and that 43,000 will do so for the class entering in 1974-75. With the number of applicants increasing more rapidly than available places, the percent of applicants who could be accepted decreased from 52 in 1967-68 to 37 in 1972-73. For the class entering 1974-75, it is anticipated that only 33 percent of those who apply will be admitted.

At the OU College of Medicine, David C. Mock Jr., MD, associate dean for medical student affairs, said applications to the medical school have increased annually in some degree for many years, but tremendous jumps have occurred in recent history. Mock said that in 1969 and 1970, applications had risen to between 600-700 for 135 available spaces, but in 1971 the number soared to a then-record 1,024, a 60 percent increase in one year. The dean attributes the unusually quick rise to the fact that the college used the nation-wide American Medical College Application Service for the first time in 1971, and thus a large number of nonresidents applied, 692 as compared with 332 residents. The service was used only for that one year because the college's faculty did not feel it was particularly useful. When the service was dropped, applications fell to 771 in 1972, 416 residents and 355 nonresidents. This year, 1973, the number of applications is again up dramatically, numbering 1,142, and again for the 146 available places nonresident applications exceeded the resident number, 630-512. The percentage of total applicants who could be accepted plummeted to 12.8 percent. All projections point to even more applications in coming years.

*The Advisor* article also noted that an applicant's residence is a major factor in his chances for admission. For example, Table 1 presents, by region, (1) the number of first-year places available in 1971-72, (2) the number of potential applicants for those places, (3) the resulting highest percent of applicants that could be enrolled assuming that applicants applied only to schools in their

TABLE I

Relation of Available First-Year Places to Regional Residence  
Class Entering 1971

REGION	Total First-Year Places in Public and Private Schools (1)	Number of Resident Applicants (2)	Places as Per Cent of Applicants (3)	Resident Applicants Accepted and Entered Any Region (4)	
				Number	Per Cent
Northeast	3,192	8,416	38	3,400	40
Southeast <sup>1</sup>	2,068	4,142	50	1,747	42
North Central	3,517	7,299	48	3,332	46
South Central	1,875	3,697	51	1,765	48
West	1,436	4,822	30	1,606	33
Total or Average	12,088	28,376 <sup>2</sup>	43	11,850 <sup>2</sup>	42

<sup>1</sup> Including Puerto Rico.

<sup>2</sup> Excludes Canadian and foreign applicants.

regions, and (4) the number and percentage of regional residents actually accepted to and enrolled in one or more medical schools in any region.

Statistically, applicants from the East and West Coasts are less likely to gain admission to medical schools in their own geographic regions than are applicants from other areas of the country. Since the number of out-of-state applicants admitted to publicly-supported schools is only 2-3 percent of all such applicants, it is hardly worthwhile for a non-resident to apply to an out-of-state, publicly-supported medical school unless his credentials are outstanding and he can present compelling reasons for admission to that school. Or, expressed another way, an applicant currently has only one chance in 50 of being admitted to a state-supported school located outside of his own state.

In comparing OU figures for 1973-74 to Table 1, compiled two years earlier, we find there were 146 total places, for which there were 512 resident applicants. If all the places had been awarded to resident applicants, only 29 percent of the applicants would have been accepted. In actuality, there were 137 residents admitted, 27 percent of the total resident applications. Nine of the 630 out-of-state applicants were admitted, 1.4 percent of the applicants. Thus the 1972-73 freshman class is 94 percent resident and 6 percent nonresident.

While there is no bottom limit on the number

or percentage of nonresident applicants who can be admitted, OU Regents' policy sets an upper limit of 20 percent of each entering class. No more than that amount may be from out-of-state. Doctor Mock said the amount of year-to-year nonresident admissions depends only on the application pool. In the resident pool, Mock said, experience shows that usually there are 50-75 "really outstanding" applicants and the rest are "passable." In the non-resident pool, however, there usually are "a whole lot of very qualified people." The admissions board must then make its selections by both trying to get the best class possible and leaning more favorably toward resident applicants. Mock said the 20 percent ceiling had never been reached, and only once was it even approached. If the full quota of non-residents had been admitted in 1973, there would have been 29 such students. Only 9 were actually admitted.

Other considerations concerning the admission of nonresidents to the College of Medicine

TABLE II

Enrollment by Region of Residence  
Class Entering 1971

Region of Residence of Enrollees	Per Cent of Out-of-Region Enrollees	Per Cent of In-Region Enrollees
Northeast	22	78
Southeast	18	82
North Central	12	88
South Central	14	86
West	29	71
Average	18	82

are "reciprocal admissions" of Oklahomans to other medical schools and the granting of federal support. Although demonstrable data is not available, there is concern on the part of some College of Medicine administrators that if the number of nonresident admissions is greatly reduced, other neighboring publicly-supported schools will not take Oklahomans. There are no formal agreements concerning this policy, but "gentlemen's agreements" between schools are generally acknowledged to exist. There is some feeling that this sort of "admissions retribution" has already happened with regard to Oklahoma's dental school applicants, since the first class at the OU school was almost exclusively resident. Again, conclusive data is unavailable, but the number of dental students from Oklahoma accepted elsewhere reportedly was low in 1973. Additionally, the OU legal counsel reports that, if the college became exclusively resident, there could be a loss of federal support monies. These problems have not yet been researched completely, and are mentioned here only for consideration.

*The Advisor* also indicates that

another way to look at the effect of geography on chances for admission is to consider the percent of enrollees from one region enrolled in schools in other regions. Obviously, successful candidacy within a state or region is a function of the level of competitiveness at the schools within that state or region. The chances for admission to an out-of-region school are much less certain because of the scarcity of places for the nonresident and because private schools tend to draw from the national rather than local pool.

Again, at OU's medical school, for the 1973-74 year, there were 9 out-of-state enrollees and 137 residents, or 6 percent nonresident and 94 percent resident.

## II. The Admissions Procedure at OU

The admission and acceptance process for the College of Medicine at the university is the most complex and complete screening system within the university for selecting applicants. It is designed to enable the College of Medicine to determine which 146 students have the best chance of succeeding in a very demanding academic curriculum, and to do so when the selections must be made from more than 1,100

students who have already successfully advanced through a difficult series of pre-medical courses which eliminate many prospective doctors.

The admissions process and decision are based on the collective evaluation of four independent pieces of information. They are:

- A. The college transcript of the prospective student (GPA).
- B. The student score on a national medical college admissions test (MCAT).
- C. Personal interviews with members of the College of Medicine admissions board.
- D. Written personal references.

The applicant from an Oklahoma college or university first goes to his school's pre-med advisor for an application, and returns it to the advisor in completed form. At most schools, depending on size, a pre-med advisory committee composed of science faculty members interviews the applicants, then forwards the applications, transcripts and interview results to the College of Medicine. The only screening done by this committee is on the basis of grade point average, which must be at least 2.5 overall and at least a 2.0 in the required pre-med subjects. If those requirements are met, and the MCAT has been taken, the College of Medicine's Board of Admissions will interview the applicant.

The admissions board is made up of full-time and part-time faculty plus representatives from the Oklahoma Academy of Family Physicians and the State Medical Association, and nine fourth-year medical students chosen by the student body. Three separate interviews are held with each applicant, one of which is conducted by a student and the other two conducted by other board members.

A review committee, composed of the most experienced board members who do not participate in the interviews, then studies all applications, other board members' written interview reports, and the applicant's total folder before choosing to either recommend acceptance, rejection, or deferment of the applicant until all applicants have been reviewed, so the best-qualified can be selected. The chairman of the committee reports to the whole board the committee's recommendation and the board reviews and votes on it.

The college transcript is probably the single most influential part of the evaluation. It has the advantage of measuring between two and

four years of academic performance and also provides some measurement of the individual's motivation and desire to succeed.

Although College of Medicine administrators stress that the applicant must be evaluated on all four items, statistical evaluation supports the thesis that a high grade point average and acceptance to the University of Oklahoma College of Medicine have a close correlation. Two examples are:

- A. Of the top 40 applicants in terms of grade point average, 20 were admitted to the College of Medicine.
- B. Approximately 50 percent of those admitted to the College of Medicine had a 3.5 grade average and were in the top 200 students in terms of GPA.

The MCAT test, which is required for admission to the College of Medicine, provides some measurement of the prospective student's ability and is most useful when compared with the GPA. This information enables admissions committee personnel to evaluate the amount of knowledge retained and potential academic ability as compared to his actual performance (GPA). There is no MCAT minimum score, but in general applicants accepted have MCAT scores of 500 or better. The test is one of general information, verbal ability, quantitative ability and knowledge of science. It is, for the most part, a recall examination.

Statistical evaluation of the performance on the MCAT as compared with acceptance to the College of Medicine indicates that it is a less important aspect of the admissions procedure. Two examples are:

- A. Of the top 80 students in terms of their MCAT scores only 20 were admitted to the College of Medicine.
- B. Approximately 60 percent of those admitted to the College of Medicine were in the lower half in terms of their score on the MCAT.

These observations, however, have a bias factor in them. That is that most of the really high MCAT scores from OU applicants were by out-of-state students. Doctor Mock expressed the opinion that the great majority of the top 80 scores were by nonresidents, and thus the real importance of the test is made even more difficult to quantitatively define.

It is also interesting to note that 1972 examinees (1973 applicants) from the South Central region, which includes Oklahoma, had

the lowest mean score in all four test areas of the five regions of the country: Northeast, Southeast, North Central, South Central, and Far West. The fact that 60 percent of those admitted at OU were in the lower half in terms of applicants' MCAT scores probably tells us less about the admission importance of the MCAT than it does about the quality of the Oklahoma examinees as compared with the nonresident applicants.

Three personal interviews are included in the admissions process, and are required of all in-state applicants and those out-of-state applicants who pass an initial screening of their GPA and MCAT. The private interviews are each conducted on a one-to-one basis by three different members of the admissions board, and each member separately evaluates the applicant. Since narrative and individual evaluation is made, no priority or ranking is established and it is almost impossible to statistically evaluate the importance of the interview in terms of acceptance to the College of Medicine.

From a limited review of individual interview recommendations, however, it is obvious that the interview does play an important part in the admissions decision. This is particularly true in cases where the applicant is applying to the College of Medicine at an early age and the most critical decision is not the academic ability but the applicant's maturity and ability to handle the pressure of an accelerated learning process.

One of the most important functions of the personal interview is to evaluate the applicant's motivation, and this can also be extremely critical in the admissions decision.

One other piece of information evaluated on each candidate for admission are his references—personal, written letters of recommendation. Each candidate is required to submit at least two reference letters, one from his undergraduate pre-med advisor or advisory committee and one from a faculty member of the candidate's choice at his college or university. These may be supplemented with any number of others, at the applicant's discretion, but he must have at least the two mentioned. Much like the interviews, it is practically impossible to evaluate the importance of the references. Usually they are used to discriminate among applicants whose qualifications are closely similar in all other respects.

Doctor Mock says that the quality of applicants in the past few years has noticeably been increasing, especially with relation to grade averages. He said MCAT scores have risen, also, but to a lesser degree.

The issue of *The Advisor* previously cited indicates that nationally

since 1963, the undergraduate academic record of each successive class of first-year medical students has improved. In 1963, for example, 12.3 percent of the entering class had achieved an undergraduate average of "A" (GPA of 3.6 or above). By 1971, "A" students comprised 24 percent of the total group, and even higher percentages of strong performers undoubtedly are included in the class that entered last fall as well as the one scheduled to commence the medical curriculum in 1973. The overall mean GPA of successful candidates is currently at the 3.4 level. Recent applicants accepted to medical school with "C" averages (GPA of 2.6 or less) represent 5-7 percent of the total, and are usually students who achieved strikingly improved performances in their pre-medical studies after modest beginnings in their freshman and sophomore years of college.

In comparison, 53 of the 146 accepted into OU's medical school in 1973 had an "A" (3.6 or above) grade average. That 36 percent figure compares quite favorably with the 1971 national figure of 24 percent cited above. The mean GPA of successful OU candidates was 3.47, and only one candidate of the 146 had a "C" average (2.6 or less), a percentage of .68.

*The Advisor* said,

It is important to emphasize that admission committees carefully consider each candidate's overall performance—not only whether it improved or declined with time, but also the level of course work difficulty and the amount of course work attempted during any given unit (semester, quarter, etc.) of time. Therefore, a mean GPA for thousands of successful applicants cannot be narrowly interpreted as representative of all accepted applicants.

The article goes on to say that the "successful" levels of achievement on the MCAT are increas-

ing each year, but that a wide range of performance is noted. It stresses that the MCAT is simply one of the many pieces of descriptive data considered about each applicant, and that the scores lend themselves to a variety of interpretations depending on how they "fit" with other data. In any event, although admissions committees do make very careful interpretations of test results, MCAT scores of successful candidates generally cluster at the 70th percentile.

Doctor Mock's observations on admissions with relation to Oklahoma residents indicated that he feels it is not possible to identify any state school "notoriously good" at getting students admitted to the OU medical school, or one with a poor "track record." Mock said the number of applicants from a school was the most important factor, since usually more quality students could be found the larger the group of applications, and from schools where applications were high, acceptances were greater.

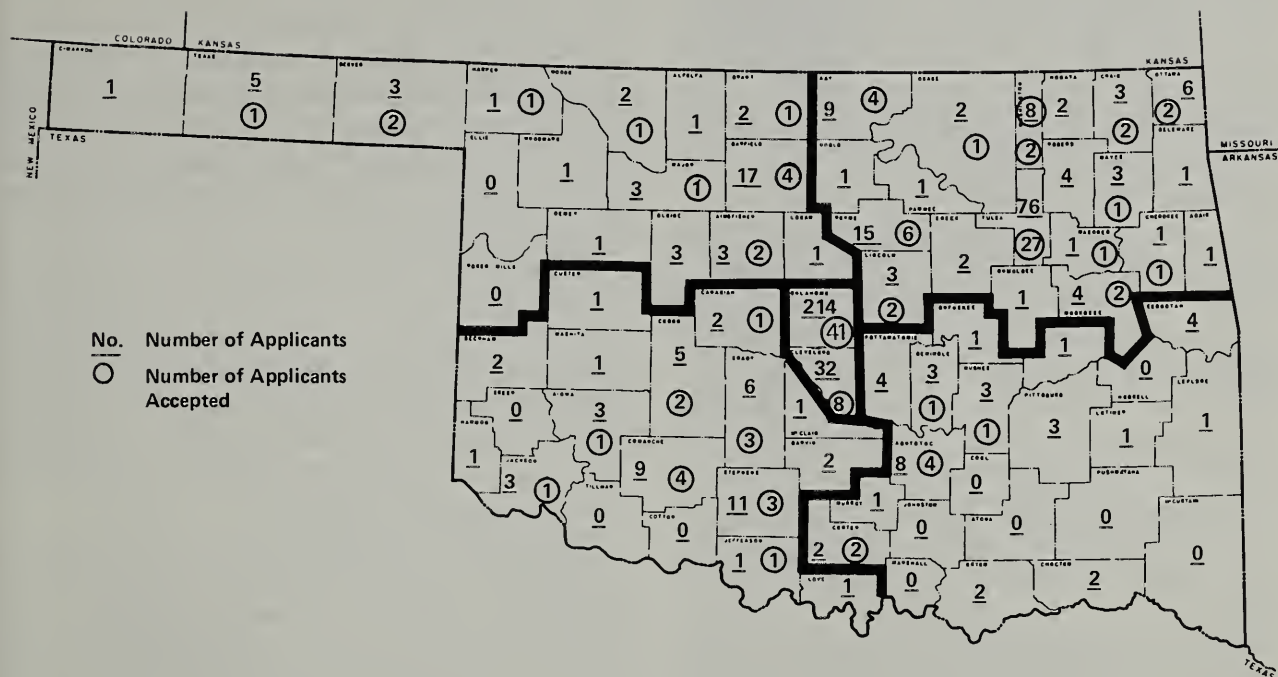
The only factor Mock cited as possibly affecting the geographic distribution of accepted students was population—the number of students in the area and the number applying. Again, Mock said the more applications from an area, the more acceptances are found.

Mock did say, however, that the college recognizes the need for doctors in rural areas of the state and, knowing that the best chance of having medical students return to rural areas will hinge on whether they are from a rural area, if there are two equally qualified candidates for admission, the board is more likely to "give the nod" to the candidate from a rural area.

### III. A Geographical Look at the OU College of Medicine's 1973 Class

In order to more fully understand the situation surrounding the selection of applicants for the College of Medicine, we have attempted to statistically review and evaluate the 1973 admissions in terms of regional representation and the college or university which they last attended. There are several basic points which should be kept in mind when evaluating the data presented in this portion of the report. First, the tables and figures represent only the 1973 admissions. However, there appears to be no reason for any major deviation from year to year, although in some instances the percentages can be altered significantly with minor changes in raw figures.

## DISTRIBUTION OF OKLAHOMA APPLICANTS BY COUNTY – FALL 1973 CLASS



Secondly, the out-of-state applicants numbered 630 and only 9 of these were admitted to the College of Medicine. Because of the fact that the percentage of acceptances was so low and the number accepted so small, the out-of-state students have been removed from these calculations. It should be remembered, however, that approximately 6 percent of the class is from out-of-state (9 of 146) and that approximately 1.4 percent of those who applied were admitted (9 of 630).

The third point has to do with the geographical breakdown of the state for purposes of this report. Five geographical sections were determined and lines running North-South and East-West through the state were used as the dividing lines, lumping counties in what was felt to be the most logical and useful grouping for consideration by quadrant, i.e., Northeast, Northwest, Southeast, Southwest (See Map above). The fifth section, the central dis-

trict, consists of Oklahoma and Cleveland Counties. This breakdown seemed the most logical in consideration of both area and population.

In reviewing the question of regional representation, it is necessary to answer two separate questions. The first is how each region of the state compares in terms of actual applications and admissions, and the second is the comparison of these raw figures to the population of the section from which they come. In these two ways we can present a complete evaluation of the regional distribution. The following table presents a summary of the regional breakdowns for the 1973 class:

Several points can be made when reviewing the regional breakdowns. First, there is an extremely high percentage of applicants from metropolitan areas. The northeast and central districts, which are predominately met-

District	Number of Counties	Number of Applicants	Number of Acceptances	Percentage of Total Applicants	Percentage of District Applicants Accepted
Northeast	20	144	51	27	35
Northwest	16	44	14	9	32
Southeast	21	36	8	7	22
Southwest	18	49	15	10	31
Central	2	246	49	47	20

ropolitan, provide 75 percent of the applicants. This far exceeded the ratio of metropolitan to rural population within the state. The second is that there do not appear to be any major differences or trends in the percentage which would indicate that acceptance rates are higher or lower based on regions or the number of applicants from a region.

It is interesting to note that the lowest percentage of applicants accepted is in the central district, which at the same time supplies 47 percent of the total applicants. The number of applicants accepted from an area appears to depend less on the percentage accepted than on the number of applicants, and of course their quality. While the Southeast's rate of acceptance was higher than the Central's, the large number of applicants in turn explains the high number of students accepted for medical school.

While it is impossible to tell from the data available, the number of applicants from the Central district is quite possibly influenced and increased because of the large number of pre-medical students attending the University of Oklahoma and the fact that, if married, they may claim Norman or Oklahoma City as their permanent residence regardless of where their parents live. The presence of the Health Sciences Center in Oklahoma City may also influence a larger number of applicants than would normally occur in the other areas of the state.

In comparing applicants and admissions to the College of Medicine to the population of the state, the 1970 census was used as a base. The table on the following page presents the population breakdown of the state by the same districts as defined previously.

Of the five sections of the state, the Central provided the only instance in which the percentage of applicants from a district was higher than the percent of the state's population in

the district, possibly for reasons already discussed. In the other four cases, the better the correlation between percentage of applicants and percentage of state population, the better was the percent of admissions.

Of the 137 residents admitted in 1972, 112 of them had last attended an Oklahoma college or university. Twenty-five residents came to the College of Medicine from schools outside the state, and of course the 9 nonresident admissions did likewise.

Among state schools, the University of Oklahoma produced 52 of the 112 Oklahoma-educated students, or 46 percent. Twenty-nine came from Oklahoma State University, and the other 31 were distributed among 11 different in-state institutions. But 13 of these 31 admissions came from private schools, and only 18 were from public colleges.

Although OU produced 52 of the accepted Oklahoma-educated residents in 1973, there was "deep concern" by some members of the University's pre-medical school advisory committee over the many good students who were rejected. Doctor Teague Self, regents' professor of zoology and chairman of the committee, said he felt only one-half of the qualified OU students were admitted.

There are more than 500 pre-med students at OU, according to Self, and probably 350 of them are what he calls "high quality" students. Of the 136 applicants from OU in 1973, Self said he felt "at least 100 would make excellent medical students."

There were 27 different out-of-state schools represented by the 34 non-Oklahoma-educated medical students. Stanford University produced the most of this group with 5, and Duke University, Washington University in St. Louis, Missouri, and Yale University were the only other schools represented by more than one successful applicant. This may be explained by the quality of students such private institutions often attract and produce. □

District	Percentage of State Population	Number of Admissions from District	Percentage of Admissions from District	Percentage of Applicants from District
Northeast	35	51	37	27
Northwest	9	14	10	9
Southeast	16	8	6	7
Southwest	16	15	11	10
Central	24	49	36	47
	100	137	100	100

## RELIABILITY OF CULTURE DIAGNOSIS IN GONORRHEA

Among the tools available to the physician in the clinical laboratory, the culture for *Neisseria gonorrhoeae* is among the most specific. False positive gonorrhea cultures are rare (1% or less). Therefore, when a physician treats a patient for gonorrhea on the basis of a positive culture, he can be 99% sure he is treating the patient appropriately. The physician must rely heavily on the culture results, since 80% of females with gonorrhea are asymptomatic.

Guidelines followed by the U.S. Public Health Service and the State Department of Health in the diagnosis of uncomplicated gonorrhea in women are these:

1. Obtain culture from cervical os (rectal culture may be done at same time);
2. Immediately inoculate an appropriate medium (eg Thayer Martin plates or Transgrow);
3. Pre-incubate specimens that are being sent to a reference laboratory;
4. An isolate obtained in the above fash-



## News From The Oklahoma State Department of Health

ion is identified as *N. gonorrhoeae* on the basis of (a) oxidase positivity; (b) colony morphology; (c) appearance on gram stain.

If these guidelines are followed, 1% or less of isolates identified as *N. gonorrhoeae* will be false positives.

The chances of obtaining a *false negative* gonorrhea culture are approximately 10%, under *ideal* conditions.

A repeat culture, performed because the physician doubts that a given female patient is infected, can be seriously misleading. A positive culture result is 99% reliable; the chances of confirmation are less than 90%. There is *no* advantage in reculturing a culture-positive patient prior to treatment. There *is* considerable risk of failing to diagnose an infectious patient by doing so. □

### COMMUNICABLE DISEASES IN OKLAHOMA FOR OCTOBER, 1973

Disease	October 1973	October 1972	September 1973	Total to Date 1973	Total to Date 1972
Amebiasis	2	2	1	28	25
Brucellosis	1	1	—	5	7
Chickenpox	3	1	10	1316	152
Encephalitis, infect.	2	2	7	98	14
Gonorrhea	826	656	1206	9056	8411
Hepatitis, infect. & serum	71	62	107	990	730
Leptospirosis	—	1	—	—	2
Malaria	1	—	—	3	6
Meningococcal infections	2	2	3	33	8
Meningitis, aseptic	5	12	16	101	63
Mumps	13	2	13	458	161
Rabies in animals	5	16	8	150	267
Rheumatic fever	—	—	2	14	26
Rocky Mt. spotted fever	4	3	4	76	38
Rubella	—	2	1	180	39
Rubella, congenital syn.	—	—	—	—	—
Rubeola	1	—	2	56	10
Salmonellosis	47	25	26	248	136
Shigellosis	14	64	13	176	179
Syphilis, Infectious	8	16	19	143	98
Tetanus	—	—	1	4	1
Tuberculosis, new active	33	20	33	279	265
Tularemia	3	1	—	22	11
Typhoid fever	—	—	—	2	3
Whooping cough	—	2	1	21	32

## **Phase IV Regulations Strongly Opposed**

Even though the Cost of Living Council eased up the tight restrictions on the health care industry, the new regulations outlining Phase IV to become effective January 1st have been strongly opposed by the nation's four largest health care industry organizations.

The American Medical Association, American Hospital Association, American Dental Association, and the American Nursing Home Association have all stated their opposition to Cost of Living Council regulations. Although physicians came in for an allowed 4 percent aggregate weighted price increase, the AMA had filed a formal request and actively lobbied for complete exemption from Phase IV controls.

Prior to the announcement of Phase IV regulations, the AMA had conducted a double barreled lobbying of the CLC. They were lobbying for complete exclusion, or for a minimum 5.5 percent increase. After announcement of the new regulations Ernest B. Howard, MD, Executive Vice-President of the AMA, stated that the 4 percent figure was "significantly better" than the 2.5 percent increase that had been allowed under Phase III. However, he also stated that the AMA would continue to argue for complete exemption from control.

The American Hospital Association expressed complete dissatisfaction with the Phase IV regulations. Attorneys for the association have filed a petition requesting a formal hearing to permit the presentation of the AHA's objections to the proposed regulations. In the petition they stated that the Cost of Living Council had discriminated against hospitals and had put "economy ahead of quality of care and appropriate attention to the patients."

In late October the American Dental Association filed a suit against the Cost of Living Council seeking to remove the 2.5 percent fee increase limitation. ADA has said that it will continue with the suit even with the 4 percent

increase allowed under Phase IV regulations. The American Hospital Association has also indicated that a lawsuit might be filed to prevent Phase IV regulations from going into effect on January 1st.

A lawsuit was filed in mid-September by the American Nursing Home Association challenging the Economic Stabilization Program. The ANHA said that it will oppose implementation of the Phase IV regulations and will proceed with its lawsuit. The association stated that it did not believe the council "has the power to superimpose controls on programs established and controlled by Congress."

In its formal request that all physicians be exempt from Phase IV controls the AMA said that physicians have "incurred gross hardships and inequities as a result of the continuation of the percentage limitation on fee increases and the profit-margin limitation." The medical organization pointed out that hardships and inequities are caused by discrimination against physicians when regulations are not similarly imposed on other self-employed persons.

In its formal statement to the Cost of Living Council the AMA said that wages have generally increased at an annual rate of 6.8 percent since the beginning of Phase II, while physicians' fees were limited to annual increases of 2.5 percent. The proposed Phase IV regulations would continue to discriminate against physicians by limiting increases to 4 percent and this limitation is inadequate due to the rising costs incurred by physicians.

The statement went on to say, "The profit-margin limitation is unfair and inequitable to physicians because physicians experiencing a growth in their practice are penalized. A physician's profit-margin may increase for many reasons, unrelated to fee increases, such as an expanded workload."

"Current and proposed price regulations prevent physicians with low fees from increasing them to prevailing levels in their community." The AMA pointed out that "the regulations deny physicians the benefit of a small business exemption currently available to all industries except health, construction and petroleum."

In conclusion the AMA said, "While the contention might be that individual exemptions are available from the Cost of Living Council upon a determination of hardship, a requirement of filing multitudinous exceptions merely compounds the hardship by necessitating substantial legal and other professional expenses." □

## Economic Stabilization Program Phase IV Regulations Released

Phase IV regulations governing providers of health services have been released by the Cost of Living Council, the regulating agency for the Economic Stabilization Program. The new rules will be applied to medical practitioners effective January 1st, 1974.

Under Phase IV physicians would be subject to several changes in price controls. Principally, physicians would be allowed to raise their annual aggregate weighted price increase from 2.5 percent to 4 percent. However, price increases for individual services over \$10 would be limited to 10 percent annually, and for services under \$10 to an annual \$1 price increase.

In another move the responsibility for the administration of controls on the health care providers under the Economic Stabilization Program was removed from the Internal Revenue Service and turned over to the Cost of Living Council. Inquiries should be sent to the Director, Health Operations, Office of Health, Cost of Living Council, 2000 M Street, N.W., Washington, D. C. 20508.

Another change eliminates the cost justification as a requirement for price increases. Therefore, a physician could increase his prices by up to 4 percent without the worry that he might later be called on to justify his price increases by showing a higher cost of doing business.

Phase IV requires that a physician post his fees. Each practitioner is required to post an easily readable sign stating the availability of his price schedule.

The price schedule itself "must show the prices in effect October 1st, 1973, for those services which comprise 90 percent of the total revenues in the last calendar year. It must also contain any subsequent change in any of these prices, the date of each price change, and the weight given to that service in determining the total aggregate weighted price increase."

If a practitioner charges different fees for the same service offered to different classes of patients, he is required to list each such fee on his price schedule.

Schedule IV price increases are cumulative. Any physician who was entitled to take a price increase during Phase II and III may still do so at any time now or in the future. However, price increase percentages accumulated under Phases II and III must be cost justified in

accordance with Phase II and III regulations.

Price increases not taken under Phase IV regulations in 1974 may also be accumulated. However, when using accumulated price increases, the 10 percent limitation on price increases for any service in any calendar year does apply.

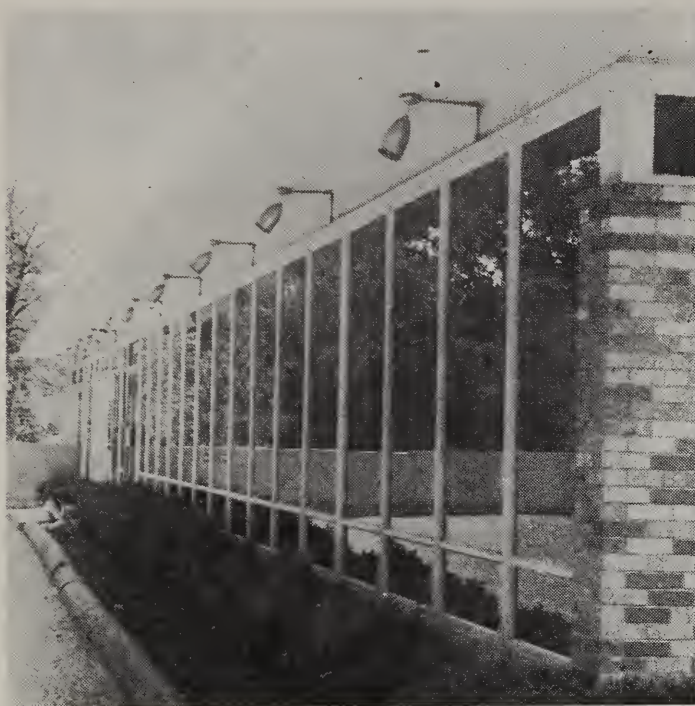
The revenue margin limitation is still applicable under the new regulations. Any price increase cannot cause an increase in the physician's profit margin. The regulations specify that the profit margin may be determined by using either the aggregate of billed charges or monies received (which excludes bad debts) so long as the determination is consistent with the accounting practices previously used within the physician's practice. So long as prices are not increased, a physician's profit margin is unrestricted. Thus, if a physician chooses to work longer hours or increase productivity, he may increase his profit margin without going through any exception process.

Whenever a practitioner provides a new service or property which he did not provide in the same or substantially similar form at any time during the proceeding one-year period, he may establish a base price comparable to the prices charged for that service by other providers in the same medical market area.

Health care industry employees still have wage increase restrictions. Employees within the health industry continued to be subject to the 5.5 percent limit on salaries and .7 percent limit on fringe benefits.

According to the regulation a limit has also been placed "on the length of time the profit margin test (called revenue margin in the rules) is in effect. When a price has been increased during the first fiscal quarter over the price lawfully in effect on the last day of the preceding fiscal year, the revenue margin test applies only during that fiscal year. If the price is increased after the first fiscal quarter, then the test applies during both that and the succeeding fiscal year."

Regarding the price schedule the regulations state, "The schedule shall be made available for public inspection, and a copy shall be furnished to any person upon request. Each practitioner shall post a conspicuous and easily readable sign in each of his facilities stating the availability and location of the schedule. No price may be increased before the sign is posted and the schedule is made available for public inspection." □



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# Pacific Breezes Await Oklahoma Physicians



Australia's world famous Sidney Harbor, with the shell shaped Sidney Opera House, is just one stop on the OSMA's two-week South Pacific Adventure Tour. Departing Oklahoma City on March 12th, the tour is only \$1,098 per person with accommodations in three of the world's finest hotels in Australia, New Zealand and Tahiti.

Oklahoma physicians have the opportunity to enjoy two sun-filled weeks in colorful and exciting New Zealand, Australia and Tahiti. The Pacific breezes are available to those going on the Oklahoma State Medical Association's South Pacific Adventure Tour.

Leaving Oklahoma City on March 12th, the two-week tour is being offered for the low price of just \$1,098 per person. That's less than the commercial tourist round trip air fare alone.

The tour will fly via chartered World Airways private 707 jet with all the luxury services . . . stretch-out seating, the finest foods, complimentary cocktails and bubbling champagne.

Accommodations will be in the finest hotels with superb views where tour participants can enjoy complete American breakfasts at each hotel and gourmet dinners at a selection of the finest restaurants in each city.

The best part of the tour is its non-tour aspects. There is never any regimentation. A travel escort and five personable local hosts will always be ready to arrange everything for the traveler's comfort and pleasure.

First stop on the tour is Auckland, New Zealand, for four days at the hotel Inter-Continental. This hotel is New Zealand's newest and certainly the finest, with spectacular views of Waitemata Harbor and the Tasman Sea.

New Zealand foods are a gourmet's dream.

Toheroas are a superb shellfish that should be a must on the seafood dining list. And a trip to Auckland would not be complete without a full course dinner featuring world famous succulent New Zealand lamb.

The next four days will be spent in Sidney, a perfect introduction to the vigorous, young land of Australia. In Sidney, the tour will stay at the New Kingsgate Hyatt Hotel with a magnificent view of Sidney Harbor. Skyscrapers and the famous new Sidney opera house compete with the harbor bridge for attention.

While Australia is a newly emerging country, the Koala bears, Kangaroos and Duckbill Platypuses are a reminder of the continent's strange antiquity.

The last stop on the tour will be the island of Tahiti, a lush and primitive land that even today remains a hidden paradise on earth. Accommodations will be at the cliffside Taharaa Inter-Continental Hotel. Seaview rooms with flower decked balconies will introduce the travelers to a peaceful paradise.

Tahiti's French heritage is renewed through the excellent cuisine of the fine Papeete Restaurants.

Art lovers will want to visit the world famous Gauguin Museum with its thousands of documents on the French painter who spent much of his life in the South Seas.

The OSMA has arranged this entire two-week holiday for a price of \$1,098 which includes all transportation, the finest hotels, two meals daily, tips, transfers and many other extras. The South Pacific Adventure is an extraordinary value.

A \$100 deposit now will assure you of escaping to the warm and wonderful world of blue skies and seas. Reservations should be sent to the OSMA office at 601 N. W. Expressway, Oklahoma City, Oklahoma 73118 □



REMEMBER THESE DATES

May 13th-15th, 1974

**OKLAHOMA MEDICAL SUMMIT**

## Oklahoma Medical Summit Relies On Exhibit Income

The burden of financing an educational meeting as large as Oklahoma Medical Summit can be staggering. It is estimated that it will be necessary to raise nearly \$50,000 to finance the four-day meeting.

Oklahoma Medical Summit, the combined annual meetings of the Oklahoma Academy for Family Physicians, Oklahoma City Clinical Society, and the Oklahoma State Medical Association is scheduled for May 12th through 15th, 1974, in Oklahoma City's Myriad Convention Center.

In a special report to the Oklahoma Medical Summit Steering Committee Samuel A. Wheeler, MD, Exhibit Chairman outlined the steps his committee had taken to raise the \$50,000 necessary to produce the medical meeting. He pointed out that there are 100 spaces in the Myriad Exhibit Hall, 25 have been reserved for scientific and institutional displays. The remainder have been set aside for commercial displays and are available for \$500 to \$600 each.

Doctor Wheeler's report revealed that over 350 medical supply and related companies had received announcements of Oklahoma Medical Summit. "We hope the uniqueness of Summit will create a real desire for exhibitors to participate. This is the first time that the major medical organizations of the state have combined meetings."

As of December 1st approximately 45 pharmaceutical companies had indicated their desire to exhibit during Oklahoma Medical Summit. If the meeting is to be properly financed, additional pharmaceutical companies need to be encouraged to display their goods and services. Doctor Wheeler asked physicians to inquire about the intentions of a company to exhibit whenever a pharmaceutical representative calls upon them.

In providing members of the Steering Committee with the following list of exhibitors and contributors, Doctor Wheeler admonished members to scrutinize the list. "If a company representative that calls on you is not on the list, you might ask why?" The companies that have already signed up for exhibit space area as follows:

Abbott Laboratories, Astra Pharmaceuticals, Ayerst Laboratories, Bo-Mise Laboratories, Burroughs-Wellcome, Carnrick Laboratories, Ciba Pharmaceuticals, Dorsey Laboratories, Eaton Laboratories, Emko Company, Flint Laboratories, Geigy Pharmaceuticals, Ives Laboratories, Lederle Laboratories, Eli Lilly & Company, Meade-Johnson, Metro-Med. Inc., Mission Pharmaceuticals, Ortho Pharmaceuticals, A. H. Robins Company, J. B. Roerig, Division - Pfizer Laboratories, Ross Laboratories, Sandoz Pharmaceuticals, Schering Corporation, Searle Laboratories, Smith, Kline & French, Stuart Pharmaceuticals, Tri-State Pharmaceuticals, Upjohn Pharmaceuticals, Wyeth Laboratories, Coca-Cola Bottling Company, Seven-Up Bottling Company, OSMA Insurance, Beverly Hills Hospital, Bolen Imports, Bryan Institute, Jackie Cooper Oldsmobile, Depuy-Rogers, Medtronics, Neuro Systems, Parke-Davis Company, Physicians Planning Service, William H. Rorer Company, Veazey's Best Rents, Merck, Sharp & Dohme\* and Purdue Frederick\*.

\*The asterick denotes special donations made to Oklahoma Medical Summit. □



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## **"Killer—Pulmonary Disease" Scheduled For January 14th**

Continuing a series of medical documentaries presented by PBC-TV will be "Killer — Pulmonary Disease" to be shown January 14th. These programs are designed to inform the public about the methods of prevention, early detection and treatment of five medical conditions that accounted for 75.7 percent of deaths in the United States last year: Heart Disease, Inborn Genetic Defects, Pulmonary Disease, Trauma and Cancer.

An estimated 150,000 Americans die each year from diseases of the lungs—pneumonia, asthma, chronic bronchitis, emphysema, lung cancer, black lung, white lung, pulmonary edema, and a host of lesser-known conditions. Pulmonary disease is the fifth largest cause of death in the U.S., and is responsible for 80 percent of all deaths in the first week of life. Because of lung disease, 60 million work days are lost each year, at a cost to the nation of \$10 billion.

The most vulnerable of all body groups, the lungs are, at the same time, the most resilient of human organs. Continuously exposed to environmental hazards, they are protected from insult by a variety of defense mechanisms, which man has bypassed or negated in this past century.

Aerosol sprays, automotive emissions, and cigarette gasses are only a few of the pollutants with which we are killing ourselves.

Respiratory disease cannot yet be reversed; early detection is the only defense at the present time, and detection is still in its infancy. Computer analysis, nuclear X-ray scanners, body boxes, bronchofiberscopes, spirometers, esophageal balloons, nitrogen tests, electron microscopes, and blood gas analysis are some of the devices now being used for detection.

Future treatment may be bound in enzymes or fluoro-carbons, and lung transplants offer a degree of hope.

Whereas modern technology has made sophisticated equipment available, this knowledge still needs to be implemented. How the medical profession, individual and community can work together both for the advancement of detection and treatment are subjects of the pulmonary disease show in "The Killers" series.

The Medical Advisory Board for "Pulmonary Disease" is comprised of: Doctor Stephen Ayres, St. Vincent's Hospital (Worcester, Mas-

sachusetts); Doctor Claude L'Enfant (director, lung program), Heart & Lung Institute; Doctor Richard Riley, Johns Hopkins University; Doctor Alfred Fishman, University of Pennsylvania Medical Center; and Doctor Robert Anderson, National Tuberculosis & Respiratory Disease Association.

Specific locations which were filmed: The Veterans Administration Hospital (E. Orange, New Jersey); McGill University; Children's Hospital (Montreal, Canada); Harvard Medical School; Rancho Los Amigos Hospital (Downey, California); The University of Arizona School of Medicine; and The University of California (San Francisco). □

## **Energy Crisis Affects OSMA Operations**

Traditionally most of the state medical association's councils, committees, its Board of Trustees and House of Delegates, hold their meetings on Sundays. However, President Nixon's call for a voluntary closing of service stations from 9:00 p.m. on Saturday evening until 12:00 midnight Sunday will force a change in the tradition.

Immediately after the President's announcement on Sunday, November 25th, it became necessary for the OSMA to cancel or change dates for two meetings already set up for Sundays in December. The association's Peer Review Committee and the Oklahoma Foundation for Peer Review were both scheduled to meet on Sunday, December 16th.

In order to assure that the doctors attending these two meetings from across the state of Oklahoma would be able to purchase gasoline in order to get home, it was necessary to move the Peer Review Committee to Saturday afternoon, December 8th, and the Foundation for Peer Review's meeting to Saturday afternoon, December 15th.

Since almost all of the association's committees and councils are made up of representation from throughout the state, it will be necessary to consider alternative meeting days. While Saturday meetings would seem to be a logical choice, some members of the association have expressed a desire to hold such meetings on some afternoon during the middle of the week.

Since the association's councils and committees meet at the call of the various chairmen, it will be necessary for them to determine when each should meet. □

## DOCTOR, WHAT WILL YOU EARN?

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## Hair Transplant Symposium Set For Hot Springs, Arkansas

Advances in techniques of hair transplantation will be the subject of a two-day symposium and workshop, February 8th and 9th, sponsored by the American Society for Dermatologic Surgery and the American Academy of Facial Plastic and Reconstructive Surgery, Inc.

The meeting will be held at the Stough Dermatology and Cutaneous Surgery Clinic, Doctors Park, Hot Springs, Arkansas.

Physicians interested in attending this meeting should contact D. B. Stough, III, MD, Program Director in care of the Stough Clinic. □

## Subluxation "Does Not Occur" According To Study

A study of the so-called "subluxation," the basis of the practice of chiropractic, was conducted by Edmond S. Crelin, PhD, Professor of Anatomy at Yale University School of Medicine. The doctor concluded that subluxation of a vertebrae "does not occur."

In an article titled "A Scientific Test of the Chiropractic Theory" which appeared in the September-October 1973 issue of *American Scientist*, Doctor Crelin reported on the first experimental study of the subluxation. He reported studying the effects of pressure applied to the vertebral columns of six individuals within six hours after death. He noted that "the nerves did not become unduly stretched when the column was maximally twisted." From his studies he concluded, "This experiment demonstrates conclusively that the subluxation of a vertebrae as defined by the chiropractic, which exerts pressure on a spinal nerve and interferes with the planned expression of innate intelligence to produce pathology, does not occur."

Chiropractic wasn't faring too well on other fronts, either. In an editorial in the November issue of *News of New York*, published by the medical society of the state of New York, reference was made to a study conducted by the National Association of Letter Carriers. This organization had been having difficulty with chiropractic claims for services under its health insurance plan.

The letter carriers challenged chiropractic representatives to point out subluxations in 20 sets of x-rays that had been submitted by other

## C. S. Lewis, MD, Named AHA Vice-President

A Tulsa physician is the first Oklahoman to be selected as one of eight regional Vice-Presidents of the American Heart Association.

C. S. Lewis, Jr., MD, who specializes in internal medicine, was elected Monday, November 12th, at the Annual Meeting of American Heart in Atlantic City, N.J.

Lewis is an active member of the Board of Tulsa Chapter, American Heart Association, and the Oklahoma Heart Association, and is a Past-President of both groups.

In his new position, Lewis will serve as chairman for the Southern Region of the American Heart Association, an eight-state group.

Lewis' other professional activities include having served as President of the Oklahoma Society of Internal Medicine, President of the Tulsa Medical Education Foundation and is also an Assistant Clinical Professor of medicine at the University of Oklahoma School of Medicine.

Lewis has served American Heart as chairman of the Policy and Affiliate Relations Committee, is a fellow of the American Heart Council of Clinical Cardiology and is on the American Heart Board of Directors.

The American Heart Association is the only voluntary health organization in the United States whose only objective is to "reduce premature death and disability caused by heart and blood vessel diseases" through its programs of research, education and community service.



chiropractors. Each x-ray film was propped to show at least one subluxation, and in several cases as many as four or five had been diagnosed. The panel of chiropractic experts was not able to identify a single subluxation in any of the films.

The editorial concluded, "It would appear that the federal and state governments are preparing to spend public monies under Medicaid and Medicare for a condition so nebulous that the practitioners who propose to correct it are not sure they can find it." □

## DEATHS

**RAY H. LINDSEY, MD**  
1904-1973

A long-time Pauls Valley surgeon, Ray H. Lindsey, MD, died November 23rd, 1973. Born in Elmore City, Indian Territory, Doctor Lindsey received his medical degree from Northwestern University Medical School in 1929.

Doctor Lindsey established his practice in Pauls Valley and in addition, became quite active in medical circles. Certified by the American Board of Surgery, he was a Past-President of the Oklahoma Chapter of the American College of Surgeons; the Oklahoma Surgical Society; the Garvin County Medical Society; an Associate Member of the Oklahoma City Academy of Medicine and a

member of the Southwestern Surgical Congress.

**WILLIAM R. MOORE, MD**  
1924-1973

A 49-year-old, Oklahoma City general practitioner, William R. Moore, MD, died November 27th, 1973. A native of Oklahoma City, Doctor Moore was graduated from the University of Oklahoma College of Medicine in 1953. His practice was established in Oklahoma City following his internship at Hillcrest Medical Center in Tulsa.

Doctor Moore received a Life Membership in the OSMA earlier this year in recognition of the outstanding service he had rendered to humanity and his profession. □

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## Tax Deductible Donations Sought For AMA-ERF

Promotion of the American Medical Association's Education and Research Foundation, known as AMA-ERF, has become a major project of the Woman's Auxiliary to the OSMA. The auxiliary is seeking tax deductible contributions to the foundation.

AMA-ERF was established in 1962 when the American Medical Education Foundation and the American Medical Research Foundation were combined.

The purpose of the foundation is to foster medical education, medical research, and to assist young people in the financial aspects of their medical training. During 1971, grants totaling \$1,100,000 were made to 112 American and Canadian medical schools. Loans totaling \$3,100,000 were guaranteed for 2,400 medical students, interns, and residents. During the period 1962-1971, more than 46,000 loans totaling over \$51,000,000 had been guaranteed by AMA-ERF.

According to Mrs. Scott Hendren, Woman's Auxiliary State Chairman for AMA-ERF, the goal for 1973-74 nationwide is to raise \$1,000,000 for the foundation.

Oklahoma's goal is a minimum contribution of \$10 per auxiliary member. Funds will be raised through the sale of Christmas sharing cards, watches, cookbooks, note paper and pads and admission to gourmet dinners. Some lucky contributor will win a beautiful two-carat pendant presented to the auxiliary by A-jems Company, the manufacturer of "The World's Most Perfect Man-Made Diamonds." Contributors receive one chance to win the pendant for each \$10 contribution. A drawing will be conducted during Oklahoma Medical Summit next May to determine the winner.

Physicians wishing to contribute to specific medical schools may do so through AMA-ERF. All that is necessary to do in such a case is to send instructions with your contribution as to which school is to receive the money. The contribution is still tax deductible.

Contributions to AMA-ERF may be used as a memorial, to honor a friend or to remember an anniversary or a birthday.

Contributions to AMA-ERF may be made in three different ways:

(1) Contributions may be made to the County Society Woman's Auxiliary.

(2) Donations may be sent to the State Woman's Auxiliary in care of the Oklahoma

State Medical Association, Attention Mrs. Scott Hendren, 601 N. W. Expressway, Oklahoma City, Oklahoma 73118.

(3) Contributions may be sent directly to the American Medical Association's AMA-ERF office at 535 North Dearborn Street, Chicago, Illinois 60610. □

## Methaqualone Declared Controlled Substance

Methaqualone, a hypnotic-sedative marketed under numerous trade names, has been declared to be a dangerous control substance by the United States Attorney General. Pursuant to the authority invested in the Attorney General by the Comprehensive Drug Abuse Prevention And Control Act of 1970, the drug has been placed in Schedule II with the narcotics and amphetamines.

Abuse of methaqualone, a previously non-controlled drug, had become a national problem. Manufactured under such trade names as Quaalude (Rorer), Sopor (Arnar-Stone), Optimil (Wallace), and Parest (Parke, Davis). Among abusers the drug was known as the love pill, afro and ludes.

As a Schedule II drug, methaqualone's manufacturer will be strictly controlled by the federal government. In addition certain restrictions will be placed upon its dispensing and prescribing by physicians.

Schedule II substances are those that are described as having a "high potential for abuse," but at the same time have a "currently accepted medical use in the United States . . ." Schedule II contains those drugs formerly known as "Class A Narcotics." It also contains the amphetamines, methamphetamines, phenmetrazine and methylphenidate.

Generally the depressant or hypnotic-sedative drugs are listed in Schedule III. The placing of methaqualone in Schedule II apparently was a reaction to its widespread abuse.

Prescriptions for Schedule II items may be filled only by a pharmacist pursuant to a written prescription. Schedule II prescriptions may not be refilled and any item in this Schedule stored in a physician's office must be kept in a "securely locked, substantially constructed cabinet."

A separate record must be maintained on Schedule II items which a physician either administers or dispenses. It is not, however, a requirement of the law that he keep a record

of his prescriptions. (As of October 4th, all prescriptions for methaqualone must meet all the requirements of the law.)

In the order declaring methaqualone to be a dangerous control substance the U. S. Department of Justice stated, "Individuals are taking methaqualone in amounts sufficient to create a hazard to their own health or to the safety of the community . . . there exists significant diversion of methaqualone from legitimate channels . . . (and) persons are taking methaqualone on their own initiative rather than on the advice of a physician." It went on to state, "Methaqualone is being used in suicides and attempted suicides as well as causing other injuries resulting from unsupervised use." □

## Higher Social Security Taxes And Payments On The Way

The question is no longer whether or not there will be Social Security payment increases, it's now a question of how much and when. Recent actions by Congress indicate that it's almost a race to see how fast increases can be granted.

Two recent actions, one in the House and one in the Senate, indicate that raises are inevitable. The Senate Finance Committee in finishing its work on HR 3153, now called the "Social Security Amendments of 1973," added a section to increase cash Social Security benefits. The House of Representatives in passing HR 11333 authorized a two-step increase in benefits.

HR 3153 that was being considered by the Senate Finance Committee had passed the House as merely a cleanup bill to make a number of minor clerical and conforming changes in the Social Security Act designed to correct errors and oversights in the Social Security Amendments of 1972. However, the Senate Finance Committee introduced a number of substantive provisions into the bill, including the increased cash benefit.

Under the House passed plan, a two-step increase totalling 11 percent in Social Security cash benefits would be granted. Beneficiaries would receive a 7 percent increase in April and an additional 4 percent in July of next year. The benefit increases would be financed through an increase in the Social Security withholding tax wage base.

House passed bills proposed a formula of 5.85 percent withholding from the first \$13,200 in income earned in 1974. Accordingly, the maximum Social Security tax for 1974 would be \$772.20 compared with \$631.80 for 1973. □

## Colon and Rectum Cancer Treatment Subject of Seminar

Rocky Mountain region physicians are invited to attend the Eighth Annual Mid-Winter Cancer Seminar sponsored by the Colorado Division of the American Cancer Society. Scheduled for January 30th-February 2nd, the seminar will be held in the Vale Village Inn, Vale, Colorado.

An outstanding faculty will present the latest information on treatment of cancers of the colon and rectum. The first session will start at 4:30 p.m. on Wednesday, January 30th. It will be followed at 6:45 p.m. with a wine reception courtesy of the Vale Village Inn.

Other conference sessions will be at 8:00 until 10:00 a.m. and from 4:30 until 6:30 p.m.

The seminar is good for ten credit hours with the American Academy of Family Physicians. A complete program is available from the American Cancer Society office at 1809 East 18th Avenue, Denver, Colorado 80218.

Reservations should be made directly with the Vale Village Inn, Vale, Colorado 81657. When making reservations, please indicate that you are attending the Mid-Winter Cancer Conference to obtain special rates of \$17 single or \$23 double (subject to 6% state and local tax). A deposit of \$25 is required with each reservation. □

## Take Your Name Off Junk Mail List

There is a way to help limit the amount of unsolicited junk mail, samples, advertisements, "throw away journals" and other "get rich schemes" which arrive in a physician's mail each day.

Most of these mailings use the American Medical Association's "promotional mailing list" to send out their items. A physician may request that his name be removed from this list by contacting the Circulation and Records Department, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610. □

## Book Reviews

**Carbon-Fluorine Compounds: Chemistry, Biochemistry and Biological Activities: A Ciba Foundation Symposium.** Edited by Katharine Elliott and Joan Birch. 417 pp. Amsterdam: Associated Scientific Publishers, 1972.

This collection of sixteen contributed papers is an up-to-date compendium of the medical, biological and theoretical significance of carbon-fluorine compounds. The general practitioner, medical specialist, and dentist have, in this collected work, an excellent reference source on modern practical and theoretical aspects of the effects of fluorocarbon compounds on man. The researcher in chemistry, biochemistry, botany, and microbiology also have papers of interest to them. The following chapters are of clinical interest. The article by C. Heidelberger on nucleotides of fluorinated pyrimidines and their biological activities is of great importance to the cancer chemotherapist. The chemistry of fluorosteroids and their hormonal properties is given excellent review by A. Wettstein. It contains a chart on fluorine substitutions at various positions on hydrocortisone (p 291) and how these modify the steroid's glucocorticoid, anti-inflammatory and mineralocorticoid activity. This chart should be available to and used by any practitioner prescribing steroid therapy. The toxicologist, dentist, physician and veterinarian can read about fluoride poisoning in the chapter by J. L. Shupe on the clinical and pathological effects of fluoride toxicity. Although this short survey is not comprehensive, it is useful in that it summarizes details needed for preliminary diagnosis of fluoride toxicity in animals and is current in suggested therapy. The chemist, biochemist, and microbiologist have chapters on fluorocarbon compounds of interest to them. Chemistry is accentuated in B. C. Saunders' chapter on the chemical characterization of the carbon-fluorine bond, and P. W. Kent's chapter on the synthesis and reactivity of fluorocarbohydrates. Biochemists may catch up on new developments in chapters such as: Sir R. Peters ("Some metabolic aspects of fluoroacetate especially related to fluorocitrate"); E. M. Galby ("Effects of fluorocompounds on metabolic control in brain mitochondria"); J. E. G. Bar-

nett ("Fluorine compounds and mammalian membrane transport and glycosidase action"); L. Fowden ("Fluoroamino acids and protein synthesis"); and N. F. Taylor ("The metabolism and enzymology of fluorocarbohydrates and related compounds").

P. Goldman affirms once again with great perspective and incisiveness, the usefulness and general applicability of the results of studies with microorganisms such as non-pathogenic strains of *Escherichia coli* and *Pseudomonas*. These bacteria can not only hydrolyze certain fluoro compounds but even synthesize fluorine-containing DNA. (Genetic engineers take note!) Therefore, they provide novel and attainable approaches and useful model systems for studying the metabolism and mechanisms of action of fluoro compounds.

In general, this book is an excellent reference work for a wide variety of biologists and should be selectively scanned for the particular chapters of interest. *Martin J. Griffin, PhD and Leon Unger, PhD*

### **Management of Juvenile Diabetes Mellitus.**

By Howard S. Traisman. St. Louis: C. V. Mosby Company. 223 pp. \$19.75.

The common goal of all physicians who treat diabetic patients is to attempt to insure that they lead longer more useful and satisfying lives. Obviously, a key approach to this is the management of diabetes with juvenile onset.

This book is a current day rarity. It is a medical textbook written almost entirely by one man. Of its 15 chapters, 11 are entirely or are in part written by Dr. Traisman and the remaining four chapters are written by his colleagues.

This book is in effect a practical manual written directly from Dr. Traisman's practice in the care of juvenile diabetics. His style of writing is simple and conversational. Most of the documentation comes from the author's own experience which has obviously been extensive. He includes a wealth of practical information, not only on urine testing, planning of diet of the use of insulin but also on such matters as income tax deduction of sugarless drug preparations, life insurance, and other points of

concern to the diabetic and his family. The chapter on the instruction of patients and their parents is excellent as is that on some of the psychological problems of juvenile diabetics.

The information assembled here should be useful for physicians dealing with diabetes in children regardless of his particular philosophy of management. *Harris D. Riley, Jr., MD* □

### Miscellaneous Advertisements

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# Recommendations<sup>†</sup> on Combination Live Virus Vaccines

## American Academy of Pediatrics

### Committee on Infectious Diseases

In the September 15, 1971 AAP Newsletter sent to Academy members, the Committee on Infectious Diseases of the American Academy of Pediatrics stated its recommendations on the use of combination live virus vaccines. After a careful review of available data, the committee concluded that:

- "This information indicates that the products are both safe and effective when used as directed."
- The vaccine "...can, therefore, be recommended with the obvious advantages of reduction in the number of injections for any given child and a concomitant decrease in the required visits to a physician's office or clinic."

<sup>†</sup>For complete text of both recommendations see your MSD representative or write to Professional Service Dept., Merck Sharp & Dohme, West Point, Pa. 19486.

## United States Public Health Service

### Advisory Committee on Immunization Practices

In the April 24, 1971 issue of *Morbidity and Mortality Weekly Report*, the Advisory Committee on Immunization Practices of the United States Public Health Service presented recommendations on the use of combination live virus vaccines. The committee stated that:

- "Data indicate that antibody response to each component of these combination vaccines is comparable with antibody response to the individual vaccines given separately."
- "There is no evidence that adverse reactions to the combined products occur more frequently or are more severe than known reactions to the individual vaccines (see pertinent ACIP recommendations)."
- "The obvious convenience of giving already selected antigens in combined form should encourage consideration of using these products when appropriate."



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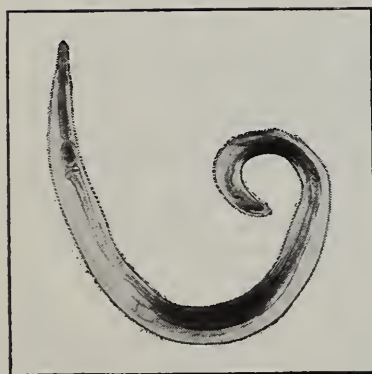
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# Pinworm therapy is often a family affair



**Contraindications:** History of hypersensitivity to thiabendazole.

**Warnings:** If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

**Precautions:** Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction,

patients should be carefully monitored.

**Adverse Reactions:** Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live *Ascaris* in the mouth and nose. Hypersensitivity reactions

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## CONTRIBUTIONS

Articles accepted for publication, including manuscripts of annual meeting papers, are the sole property of *The Journal* and must not have been published elsewhere. Authority for approval of all contributions rests with the Editorial Board, and the Board reserves the right to edit any material submitted. Manuscripts should be typewritten, double spaced and submitted in original and one copy. Receipt of manuscripts will be acknowledged and unused manuscripts returned. Used manuscripts will be returned on request. *The Journal of the Oklahoma State Medical Association* is not responsible for the statements or opinions of any contributor.

## STYLE

Footnotes, bibliographies, and legends for illustrations should be submitted on separate sheets, double-spaced. Bibliographies should follow in order of: name of author, title or article, name of periodical with volume number, page and date of publication. These references should be alphabetized and numbered in sequence.

## ILLUSTRATIONS

Illustrations, other than the author's will not be accepted for publication unless accompanied by written permission to be reproduced. Illustrations should be identified by the author's name and the figure number of the illustrations. The illustrations should be numbered in the same order as referred to in the body of the article. Used photographs, and drawings will be returned after publication if requested. *The Journal* will pay for necessary black and white illustrations within reasonable limitations. The quality of drawings, sketches, etc., must be in keeping with the quality of the magazine.

## NEWS

Members of the Oklahoma State Medical Association, the constituent societies of the association, and all readers in general are invited to supply news items of general interest to the profession.

## ADVERTISING

All advertising copy must be approved by the Editorial Board before acceptance for publication. General and miscellaneous advertising rates will be sent on request.

## EDITING SERVICE

The Editorial Board reserves the prerogative to submit contributions to a Medical Editing Service when warranted. If such is felt necessary, the Editor will contact the author for approval, informing him that there will be modest charge for this service.

## REPRINTS

Authors will receive reprint order forms from the Transcript Press, P.O. Drawer 1058, Norman, Oklahoma 73069, prior to final publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

## BACK ISSUES

Microfilm copies of back issues of *The Journal* may now be purchased from University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

The fall conference of the Woman's Auxiliary to the AMA was held in Chicago, October 7th-10th. Oklahoma was represented by Mrs. Daniel R. Storts and Mrs. John W. Williams.

Highlighting the meeting were outstanding speakers, including Bergen Evans, PhD, professor of English, Northwestern University; Ernest B. Howard, MD, AMA Executive Vice-President; Roy Pfautch, President, Civic Service, Inc.; and Cynthia C. Wedel, Associate Director, Center for a Voluntary Society.

Communication was the theme of the meeting on Monday beginning with the keynote speech "Understanding Misunderstanding" by Doctor Bergen Evans. He pointed out that most people feel the only function of language is to communicate ideas and thoughts. Actually, language also serves as an expression of group solidarity, as a separation of status, and as an emotional release. He stressed that "no animal except man talks and he owes what he is to speech."

Doctor Mortimer Enright, Director of AMA Speakers and Leadership Program and Stephen May, PhD, Associate Professor of Speech, Northwestern University, conducted a seminar on Leadership Training and Communications. Using videotapes and members of the audience they demonstrated methods of problem solving, working with committees and techniques used in speaking.

At the Monday luncheon, Doctor Howard reported on current AMA projects including information on health legislation.

Tuesday we attended mini-workshops presenting plans and programs for the year in

international health activities, health manpower, health education and health services.

Roy Pfautch, the luncheon speaker on Tuesday, emphasized the present crisis in the United States is not the final gasp of America but the opportunity for creative change. He said the flexibility that created problems will also provide the solutions and the personal approach of committed individuals is and shall continue to be the means for building and growing in the future of our nation.

The final speaker was Cynthia Wedel, who spoke on volunteerism. She emphasized three main problems facing volunteerism today: 1) Problems so vast that effective government action is the only solution — showing the need for each of us getting involved in political responsibility; 2) the problem of competition among voluntary agencies with the obvious need for more cooperation and coordination; and 3) the problems of getting more members and keeping them active.

The Southern Regional Workshop was held in Dallas, October 22nd-23rd. Oklahoma participants were Mrs. Storts; Mrs. Williams; Mrs. Scott Hendren, AMA-ERF Chairman; Mrs. William Renfrow, First Vice-President and Membership Chairman; Mrs. Gerald Zumwalt, Legislation; and Mrs. Donald Bergman and Mrs. Zia Vargha representing Health Education and Health Services.

Following a brief orientation each officer or chairman went to their interest area where program plans, discussions and idea exchanges occupied the two-day workshop. *Charlene Williams* □









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